THE BUILDER
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DESIGN FOR THE NEW ODEON CINEMA, LEICESTER SQUARE, W.

MR. HARRY W. WEEDON, A.R.I.B.A., AND MR. ANDREW MATHER, F.R.I.B.A., Associated Architects.

(See page 791.)

MEETINGS

FRIDAY, *October* 23.

Hastings School of Art. Mr. R. Goulburn Lovell on "Architectural Travel : Through Thuringia to Berlin." 8 p.m.

Institution of Mechanical Engineers. Presidential Address by Sir Nigel Gresley. 6 p.m.

MONDAY, *October* 26.

Institute of Welding (North-Eastern (Tees-side) Branch). Mr. E. T. Judge on "Electric Arc Welding Machines." At the Cleveland Scientific and Technical Institute, Middlesbrough. 7.30 p.m.

National Smoke Abatement Society, R.I.B.A. and Architectural Association. Miss Marion Fitzgerald and Messrs. Charles Gandy and Arnold Marsh on "The Possibilities of Eliminating Open Coal Fires by Legislation in (*a*) Offices, and (*b*) Domestic Buildings." At the Science Museum, S.W.

MONDAY, WEDNESDAY AND FRIDAY, *October* 26, 28, 30, *and November* 2, 4 *and* 6.

Royal Academy of Arts. Mr. H. J. Plenderleith on "Chemistry and its Relation to Paints and Painting." 4 p.m.

TUESDAY, *October* 27.

Architectural Association. Presidential Address by Mr. L. H. Bucknell, which is on "Individualism." 8.15 p.m.

WEDNESDAY, *October* 28.

Worshipful Company of Carpenters. Mr. Henry H. Clay on "Domestic Water Supply : Storage and Distribution." At the Carpenters' Hall, E.C. 7.30 p.m.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "Italian Mediæval Architecture : the Romanesque period in North and South Italy." 6 p.m.

Liverpool Architectural Society. Presidential Address by Mr. B. M. Ward, F.R.I.B.A. 6 p.m.

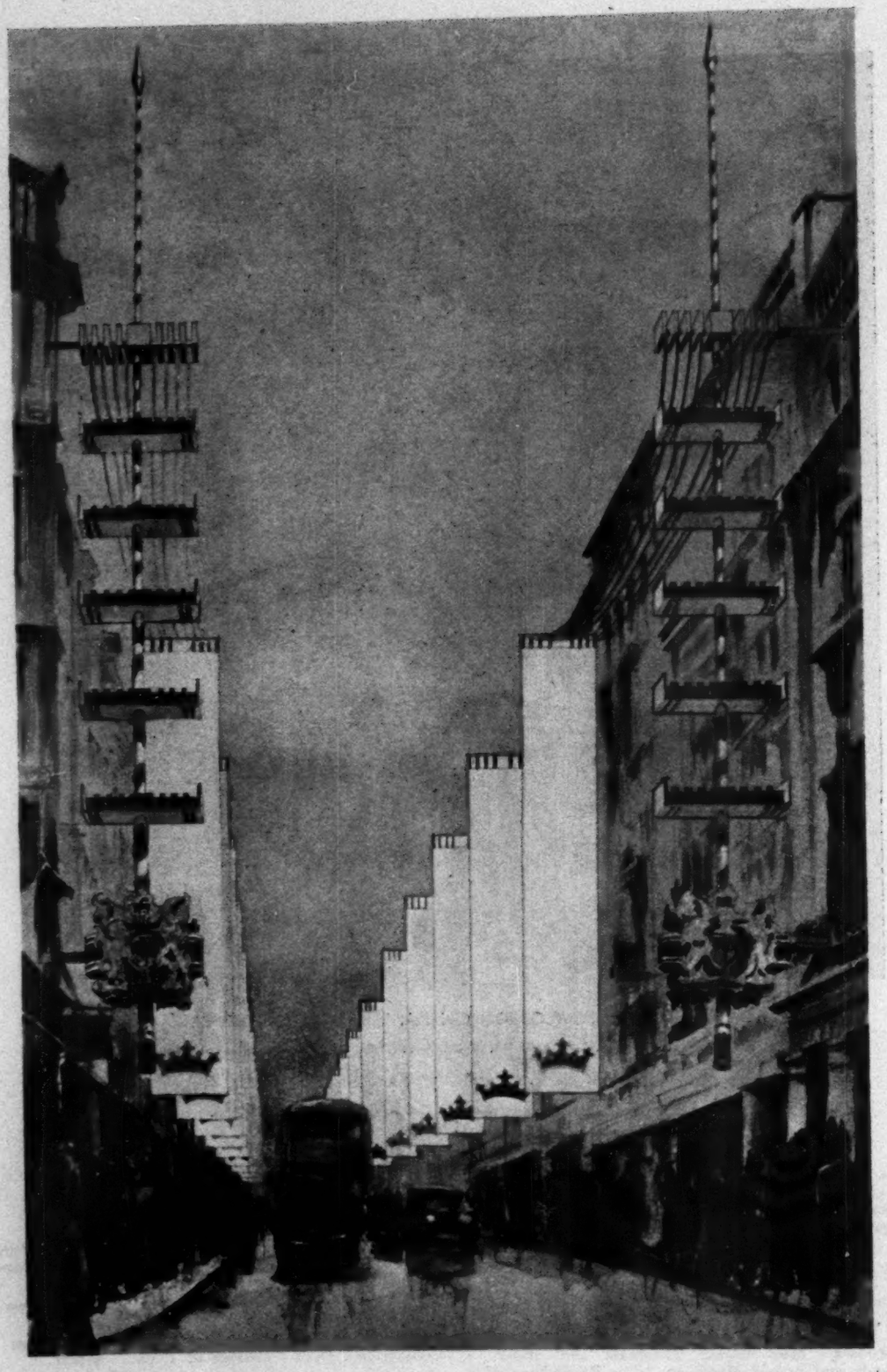
Institution of Civil Engineers. Monsieur J. Greber on "Underground Road Crossings of Paris." 6 p.m

THURSDAY, *October* 29.

Geffrye Museum. Mr. H. Clifford-Smith on "Furniture : Function and Equipment of the Mediæval House." 7.30 p.m.

Society of Antiquaries. Mr. J. B. Ward Perkins on "Sculpture in Visigothic France." 8.30 p.m.

Association of Architects, Surveyors and Technical Assistants. Mr. E. Maxwell Fry on "The Work of the Salaried Assistant." At the Caxton Hall, Westminster, S.W.1. 7 p.m.



CORONATION DECORATIONS FOR BOND STREET (COMPETITION AMONG STUDENTS OF THE ARCHITECTURAL ASSOCIATION) : Winning Scheme.

By MRS. RICHARD ACLAND.

(See page 777.)

WHAT IS ARCHITECTURE?

"WHAT is truth?" said jesting Pilate, and did not wait for a reply. "What is architecture?" we ask, and there is no answer we can accept, even if we see every day the buildings that tell us vaguely that they might be architecture, or, at the worst, a major nuisance in the countryside.

The recent interesting debate in *The Builder* carried us little further towards a definition, but at least it is pleasant to see these exchanges conducted with an inquiring mind, and in a tolerant spirit. These are the qualities that are required most of all to-day, if we are to see architecture emerging as something fine and significant in our lives, instead of becoming a battle-ground of opinions or prejudices. It is with regret that we feel that architecture as an art and the meaning or claims of beauty seem to be hidden in the dust of the conflict. Perhaps it is that all of us are not prepared to admit that beauty should be the real and final test in the art of building.

It may seem to be unfair to this debate for us to discuss the absence of the claims of beauty, but we realise, of course, that a dispute upon different expressions of architecture involves the subtle question of our inability to see another form of beauty which others may see. Or, to put it otherwise, in failing to understand or appreciate a new form of beauty, we are not necessarily wrong in seeing beauty in the older form. Only sheer weight of logic dealing with an affair of structure, or the forthright appeal of beauty before which criticism is stilled, could convince any of us that our conceptions of architectural beauty are right or wrong, or that we are out of date and unsympathetic. Even in our desire to find the true meaning of words explaining the logical development and expression of architecture, we are conscious of the need for reference to the "mind's eye." A literal interpretation of this subtle but happy expression in our language seems to be needed to-day, when the mind centred in efficiency appears at times to have a blind eye.

At first sight it may seem curious that the question "What is Architecture?" should be coupled with the motion for debate—that certain qualities "are not adequately served by the Modernistic school of design." On reflection, it becomes clear that it is natural to consider a definition of architecture in its relation to the architecture of the moment. As it happens, we are seeing two different expressions of architecture to-day; both of them can claim to be modern, and both of them could, no doubt, claim that they express the only real and true definition of architecture. In these two expressions we can only say that if they are both modern one of them is Modernistic—a distinction that still leaves the definition of architecture undefined. Without arrogating to ourselves any more right in the matter than anybody has to his own taste, we can be allowed to say that we prefer the beauty of one to that of the other.

Writing from memory, we believe that it was Mr. Max Beerbohm who long ago silenced argument as to right and wrong technical methods by observing that in art the only thing that matters is the degree of success obtained by the use of this method or that. This eminently sensible conclusion would appear to be applicable to this debate and to many controversies of to-day. Applying this test, we note that "Positive" and "Negative" are concerned with structural or technical matters—flat roofs and so on. It is, it must be admitted, a good attacking point that the structural forms and methods of efficiency should be questioned on what is its own ground—the expression of structural efficiency. Had this attack succeeded it would indicate that Modernistic architecture was a stylistic affair, instead of a direct and true expression of efficiency or functionalism, acknowledging no traditional stylistic expression.

We feel that "Negative" can claim that he defended his constructional work, and, indeed, we must assume that, in the purely structural sense, our architects are fully aware of what they are doing. The public takes it for granted that a craftsman knows his work, and that an architect is a fool who lays up a store of trouble for himself in the future. Even so, two different forms of construction, or two different ways of doing a job, will give us a roof, or no roof, so to speak, and although the appearances will be totally different, we are no nearer to a definition of architecture. We are probably nearer to a quarrel *because* they are different—when we see beauty in one and not in the other. And the curious thing in the whole matter is that if we said that one structural method was as good as the other, only one of them might be said to be Modernistic in meaning and style, without necessarily establishing for us an acceptable definition of architecture, or an appeal of beauty before which—as we have said—criticism is stilled.

The submission by "Positive" that insincerity and incompetence appear to thrive more easily in the garb of the Modernist was not dismissed wholly by "Negative's" reply—that for every bad modern house there are a hundred bad "Tudoresque" houses. Admittedly, there can be a poor defence for these pseudo-traditional houses, but we cannot overlook the feeling that we are seeing the work of the traditional speculative builder and comparing it with the Modernistic work of the Modernistic architect. We can only visualise what the speculative builder might produce in mass in the Modernistic style in the future, should there be a return to an economic market in house-building, without State- or municipal-aided schemes.

Already we have betrayed our partiality; we have indicated that no argument in this debate gave us a definition of architecture that contains and offers the beauty of the art of building. The claim of structural inefficiency fails, but there was a subtle blow in the double-barrelled argument from "Positive," that even efficiency is not a final or definite test. "Negative" did not answer it, and we doubt if anyone could give a final judgment upon it. It is a case for the higher court of æsthetics. We may say, in effect, that beauty is use and use beauty; we may say that there is a desire to-day to make everything as beautiful as it can be without detracting from its usefulness; but, on the other hand, we may say precisely the opposite. Obviously, it is a muddled case to bring before a court.

Two different methods of construction have been discussed, and to dismiss them both as satisfactory is to fail to realise that beauty is not all of the one order. In his wise letter "Architect" summed up the matter for us. There is health in the general simplification of design as a principle of the Modernistic school, and it seems to us that it is merely a matter of time before a form of beauty, understood and appreciated by everyone, will emerge from the bare bones of to-day. We shall have an answer then to our suspicions that much of what we regard as modern is nothing more than a reaction against the ideas of the preceding generation. And when we get that beauty which we hope for, we shall also find the answer to our question—"What is Architecture?"

NOTES

British School at Rome.

CONSIDERABLE pleasure will be given by the announcement that the King has appointed the Duke of Kent to be President of the British School at Rome. In this position he succeeds His Majesty, who, as Prince of Wales, was President. This appointment emphasises the value of the School's work, and indicates that Roman architecture, in its attention to structure, has yet lessons to teach the young architect which will not be lost even to-day.

A Baths Competition, Halifax.

THE value of the system of architectural competitions as a means of selecting an architect for a building has been fully established—as a long list of recent examples goes to prove. Occasionally, a municipal corporation refuses to adopt this method, and it is then that the list of objections to the system that are familiar to every architect are emphasised. A current example of this has occurred at Halifax, where new central baths are proposed; the Corporation, by a majority, has decided against obtaining plans by architectural competition. Points made in a recent discussion when this decision was arrived at were: (*a*) "that all municipal baths in this country, with two exceptions, have been designed by the local Borough Engineer"; (*b*) that architectural fees would amount to "a figure of not less than £10,000" (the scheme is estimated to cost £90,000); and (*c*) that a competition might be won by a young man "who had a flair for the drawing part of the job." It is not surprising that the Halifax branch of the West Yorkshire Society of Architects has made a strong reply to all these points in a letter to the local newspaper.

Mastership of the Carpenters' Company.

WE learn that Sir Banister Fletcher, Past-President of the R.I.B.A., has been elected Master of the Worshipful Company of Carpenters. He was elected to the Livery forty-eight years ago, and in 1916 was appointed Surveyor in succession to his brother, Major Phillips Fletcher, F.R.I.B.A., and Director of the Trades Training School. Sir Banister's election as Master is an appropriate culmination to a long family association with the Company, for Sir Banister's father, Professor Banister Fletcher, was also Master many years ago.

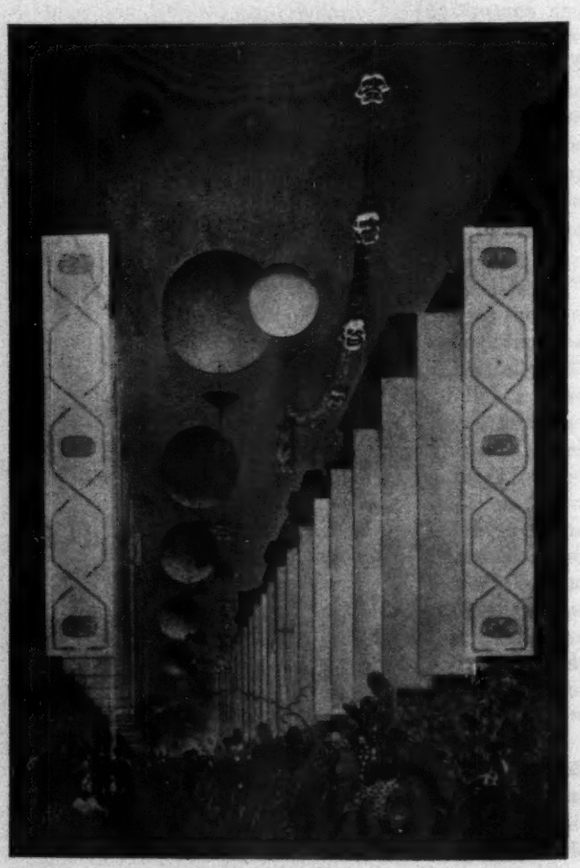
The Tivoli Corner.

THE formal handing over on Monday to the City Corporation of the short passageway linking Prince's-street and Lothbury, made behind the Tivoli Corner of the Bank of England, marks the end of a controversy of some 10 years' standing in which the Bank, the Corporation and the London County Council all took part. The matter concerned the proposal to widen Prince's-street for the benefit of vehicular traffic and pedestrians, when a seeming deadlock was averted by the Bank's offer to create, at its own expense, the passageway behind Soane's "Corner." The passageway is 11 feet wide at the entrances, opening out in the centre to about 21 feet. It is domed, with a circular opening to the sky about 15 feet in diameter. Round this opening are carved in stone the words: "The Bank made this way through Tivoli Corner for the citizens of London, 1936." A view of the Corner was shown in our issue for September 11.

The New Session of the R.I.B.A.

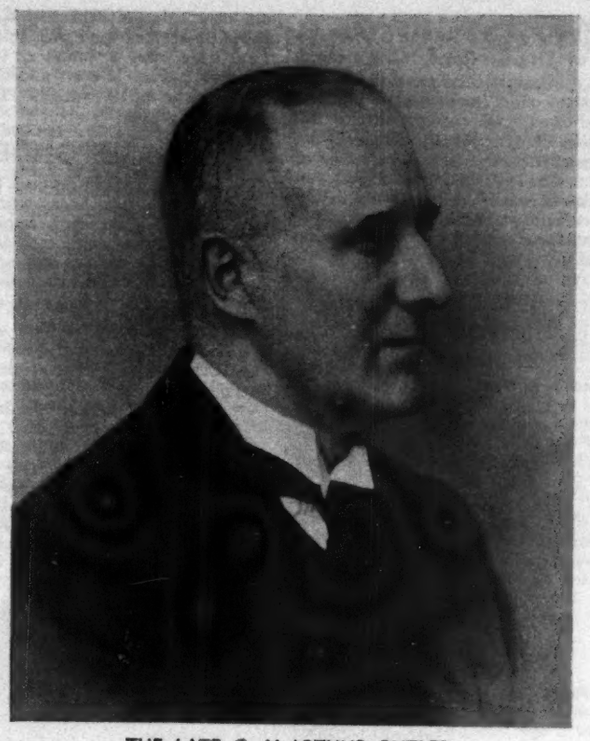
THE R.I.B.A. enters into its one hundred and third session on November 2, when the President, Mr. Percy Thomas, O.B.E., will deliver his inaugural address. The arrangements for the session (a full list of the meetings is given on page 777) indicate that the architectural profession is closely studying the future needs of the community. The keynote is set by the subject of the President's address. He will speak on

BY MESSRS. KADLEIGH AND PENOYRE.



BY MESSRS. STURROCK AND WHEELER.

CORONATION DECORATIONS FOR BOND STREET (COMPETITION AMONG STUDENTS OF THE ARCHITECTURAL ASSOCIATION:)
Schemes awarded combined Second and Third Prizes. (See page 777.)



THE LATE C. McARTHUR BUTLER.

"Planning for the Future," and it is understood that he will discuss the need for bold re-shaping of our towns in the interests of national health, traffic, trade and amenity. He will be followed on November 16 by Miss Elizabeth Denby—the first woman ever to read a paper at the Royal Institute—who will discuss "Rehousing from the Slum-dweller's Point of View," which represents a new angle of approach to what is usually regarded as a familiar problem. "Architectural and Planning Developments at the Seaside" is the title of a paper by Mr. Wesley Dougill, M.A., A.R.I.B.A., to be given on November 30—a subject of great importance in view of the growth of the holiday habit.

Charles McArthur Butler.

We regret to record the death, on October 16, of Mr. Charles McArthur Butler. Although trained as an architect (he was articled to the late Captain Rolfe, A.R.I.B.A., at Oxford) he will be best remembered as the capable and sagacious secretary of the Society of Architects from 1898 until 1925, when the amalgamation of the Society with the R.I.B.A. was effected. During the whole of this period he took a leading part in the long fight for the registration of the profession, and his active pen was freely used in the advocacy of the cause he had so much at heart. Following the amalgamation of the Society with the Institute, he was appointed Secretary of the R.I.B.A. Registration Committee. He was aided in his work for the profession by what may be called a "legal mind," and although of a retiring nature he made many friends, who believed in and trusted him. He was a Fellow of the Chartered Institute of Secretaries, and was for some years after 1925 Secretary of the Institute of Arbitrators.

The National Trust.

It is welcome news that the National Trust are to promote in Parliament a Bill to obtain further power with the main objects of the preservation of land by covenants and the preservation of historic country houses. After more than 40 years of experience, the Trust have discovered that preservation by covenant is less expensive than preservation by purchase. At present this can only be done where the Trust actually own land which would be materially affected, and the proposed new power will strengthen the hands of the Trust in making voluntary arrangements between themselves and landowners. Lord Zetland, Secretary of State for India, explained the purposes of the proposed Bill at a meeting of the National Trust on Monday. He said they had a special interest in the preservation of natural beauty, and anything that they could do in this way was designed to strengthen, or supplement in special areas, the work done by planning authorities over the country as a whole, or to come in where there was as yet no effective planning scheme. It was, and would be, done in close collaboration with planning authorities and the Ministry of Health. This clause in the Bill has, in fact, been drafted in consultation with the Ministry, and should, therefore, obtain the ready assent of Parliament.

The Preservation of Historic Houses.

Lord Zetland also explained the Country Houses Scheme. If their Bill were passed, he said, some owners of important and beautiful houses had already said that they would seriously consider handing them over to the Trust with endowment in money or in land for their upkeep on the understanding that they would be let by the Trust to them and in due course to their heirs. The powers in this Bill would lead to the Trust's becoming trustees and guardians of many houses which were also monuments of national, artistic, and historic importance. They hoped also that even without the concessions which they had been seeking it might be possible to achieve something in a limited way in certain districts under an alternative scheme for the regular opening of houses remaining in private ownership, somewhat on the lines of La Demeure Historique in France.

Preparing for the Coronation

The Building Industries' National Council announces that replies received as the result of its appeal in September to large public and private building owners urging them to place in hand during the winter months, when unemployment among painters and allied trades is heavy, works of renovation, painting and cleansing of buildings in preparation for His Majesty's Coronation, already indicate that a substantial volume of such work will be forthcoming. The Office of Works, whose normal practice it is to place such contracts during the winter months, has decided upon a programme involving the expenditure of £75,000, of which contracts have been placed in recent weeks to the extent of £25,000. In addition, local authorities up and down the country have the matter in hand, and in many cases special committees have been set up and special instructions given in relation to these and other proposals for the civic celebration of the Coronation. In a number of important towns, including London, Leicester and Newark, work of cleansing and renovating public buildings is already in hand. Information received also indicates that private building owners have taken up the proposal with enthusiasm and that buildings of all classes, both in the Metropolis and in the main provincial centres, are being cleansed and redecorated, including banks, large stores, cinemas, theatres, hotels, churches and business premises generally. All this work will have manifold beneficial effects; it will give a becoming brightness to the streets at a singularly appropriate time, and will find employment for some of the 30,000 operatives in painting and allied trades.

GENERAL NEWS

International Association for Testing Materials.

We are informed that the Duke of Kent has consented to grant his patronage to the Congress of the International Association for Testing Materials, which is to be held in London from April 19 to 24 next.

Proposed Estate Development, Chislehurst.

Mr. W. R. Davidge, F.R.I.B.A., 5, Victoria-street, S.W.1, has prepared plans for the development of the Grays Farm and St. Paul's Wood estates, totalling over 350 acres. Detached and semi-detached houses, with a shopping centre, cinema, etc., are to be erected. The contractors are Messrs. J. W. Ellingham, Ltd., Spital-street, Dartford.

R.I.B.A. "Surveyors" Examinations.

At the R.I.B.A. Statutory Examination for the Office of District Surveyor in London, held on October 7-9, two candidates presented themselves, and the following candidate was successful in the examination: Mr. Alan R. Herring.

At the R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities, held on the same dates, three candidates presented themselves, and the following were successful: Mr. John Hellon, Mr. Daniel B. Southworth.

New Parliament House, S. Rhodesia.

A statement that the new Houses of Parliament at Salisbury would not be built for a few years yet was, according to *South Africa*, made by the Minister for Mines and Works recently at Bulawayo. He justified the growing expenditure of the Government by stating that after the recent depression the wheels of the engine of State had had to be greased rather freely. As will be remembered, the designs of Mr. E. Berry Webber, A.R.I.B.A., were accepted in the recent architectural competition.

Wharf Extensions, Plymouth.

Extensive alterations and additions are being made at Cattewater Harbour, Plymouth, by Cattedown Wharves, Ltd., including the replacement of the 656 ft. timber jetty and all wooden buildings by concrete constructions in order to miinimise the risk of fire. Plans for this work were prepared by Messrs. Rendel, Palmer and Tritton, of London, and the contractors are Messrs. Christiani and Nielsen, also of London. A feature in the construction of the jetty is that instead of reinforced concrete piles being driven through the overburden of rock, cavities are being bored before the piles are sunk. Messrs. Duke and Ockenden, of London, are carrying out this work.

COMPETITION NEWS

Re-erection of Theatre Royal, King's Lynn.

The R.I.B.A. Competitions Committee have called the attention of members to the fact that the conditions of the competition for re-erection of the Theatre Royal, King's Lynn, are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime, members should not take part in the competition.

Proposed Technical College, Gloucester.

In regard to the competition for a proposed Technical College at Gloucester, for the E.C., the assessor, Mr. H. V. Ashley, F.R.I.B.A., writes: Some confusion seems to exist in the minds of one or two competitors regarding the ground now occupied by "the school buildings on the N.W. portion of the site." Clause 24 of the conditions, and the further information contained in the answer to question No. 1 appear to make the intention abundantly clear, but to make doubly sure, it may be emphasised that it is the intention that the ground occupied by these buildings may be utilised to form the whole or part of the site for the Junior Technical School as and when it is decided to proceed with this.

OBITUARY

Charles McArthur Butler.

Mr. Charles McArthur Butler, whose death is referred to in our Notes pages, was trained as an architect and became a member of the Society of Architects in 1894—a body of which he became secretary four years later. During his 27 years' tenure of that office the membership of the society was more than trebled; permanent headquarters were acquired; oversea branches were founded; and its activities extended in many directions. Mr. Butler was an original member and for many years the honorary secretary of the Beaux Arts Committee, the programme of which was supported by the society, and he was active in promoting other education objects such as the founding of architectural scholarships. For 24 years he edited the Society's journal.

We have referred elsewhere to the work he did for the statutory registration of architects, the main object for which the Society was founded. He took a prominent part in the Unification and Registration Committee, and at the request of the chairman prepared the "federation" as an alternative to the "absorption" scheme. Amalgamation with the R.I.B.A. was at length effected in 1925. Mr. Butler took a great interest in the Association of Men of Kent and Kentish Men and the Cumberland and Westmorland Association. He was a founder, the first Senior Warden, a Past Master, and then secretary of the Society of Architects' Lodge of Freemasons.

CORRESPONDENCE

The Building Exhibition and Trade Inquiries.

SIR,—Much has been written and much said about the Building Exhibition—the excellence of the exhibits, the architectural virtues of the stands, and apparently many firms received a record number of inquiries. My own experience has been disappointing.

I made a thorough tour of the stands with my foreman, and found much of interest and many salesmen anxious to be of assistance. Unfortunately, few of these were able to discuss building and engineering matters intelligently, and the usual reply was "If you will let me have your name and official position, full details, samples, etc., will be sent to you." This information I was only too pleased to give.

Alas! I have waited in vain.

Only one out of ten firms approached has ever sent me any information whatever. Many of the articles I am anxious to use on several new works about to commence. This state of affairs seems to show a shocking inefficiency amongst British manufacturers. I should like to know whether any other of your readers had a similar experience. Can you wonder under the circumstances that an engineer or architect is likely to look with suspicion on new materials?

CIVIL ENGINEER, B.Sc., A.M.Inst.C.E.

[We are surprised at our correspondent's experience, and suggest that, for his own satisfaction, he should communicate with the firms who have failed to supply promised information. Knowing how anxious firms are to satisfy all inquirers, with the object of promoting business relations, we doubt very much whether our correspondent's experience is at all general. Most firms have competent as well as obliging assistants in charge of their stands, who are not only able, but willing to supply information at once. But it may very well be that unusual inquiries are sometimes made which it is necessary to submit to a technical expert.—ED.]

An Appointment.

Mr. J. A. K. Hamilton, bridge superintendent to the Tees (Newport) Joint Bridge Committee, the statutory body controlling the vertical lift bridge at Middlesbrough, has been appointed by the London County Council resident engineer in charge of the reconstruction of Wandsworth Bridge.

Fig. 1—THE HALL HOUSE, WREYLAND MANOR.

(SEE "ROOF COVERING IN DEVONSHIRE." On facing page.)

ROOF COVERING IN DEVONSHIRE

THERE has been a considerable amount of correspondence recently respecting roof covering in Devonshire and the adjoining counties. This has partly emanated from visitors, who have noticed the disfigurement of the beautiful countryside, which is due in some cases to the poverty of the farming industry, and in others to lack of understanding of the correct method of covering roofs. The main point made has been the removal of the native covering of thatch and its replacement by corrugated iron.

Buildings must be maintained on farms, and if the farmer is so poor that he cannot replace the thatched buildings, he has often no other alternative than to use corrugated iron or to allow the buildings to fall down. The latter is a greater loss than for iron to be used; this may be replaced, when times are better, by thatching. Considerable disfigurement would be avoided if it could be insisted that the iron roofs should be of a uniform colour, such as a dark grey, slate colour or brown.

In Devonshire there is a great variety of geological strata caused by the huge "boss" of Dartmoor. With the differences in the strata there are differences in the vegetation and tree life, as well as the colour of the soils. It is not, therefore, wise to lay down any fixed roofing colour as being the only one for a county with such varied natural colours. If tiles are used, in some parts the reds are very suitable, but not in the granite and slate districts, where grey and browns form a more fitting supplement to the natural setting. The old thatch, when fresh, is a golden brown, and gradually become a deep brown.

There are a number of small slate quarries in Devonshire, but very few of them are now worked, as the sizes are small and the overburden of the pits does not enable them to be produced economically. Pantiles have been little used in Devonshire because, on account of the heavy rainfall and strong winds, this type of roofing is not suitable for the Western Counties.

When it became too expensive to produce slates locally, many were imported from outside of an unpleasant colour, but the brick manufacturers, after considerable testing to obtain a suitable material, are now manufacturing the small tiles—10½ in. by 6½ in.—which not only have excellent texture and natural colours, but are practically everlasting.

Thatch, the oldest form of roof covering, has been used since human beings first inhabited this portion of England. Excellent remains have been found in the lake village near Glastonbury. At the present time there is no shortage of skilled thatchers, and excellent work is being carried on by them. The usual form of thatch is reed, which is obtained from the finest selected wheat straw. This straw is not thrashed, but beaten, to remove the ears, and is then carefully combed and graded, being tied into nitches, this being the standard of measure. Sedge grass is not plentiful, except at Slapton, and has been very little used.

There are at the present time villages in Devonshire in which practically all the houses are thatched. There is one manorial hamlet which consists of the Hall House, seven other dwelling-houses, and, in addition, farm buildings, known as the tallet, shippen, stabling and linhay. All the roof coverings are of thatch, and the main houses have never been covered with any other material. The oldest house was built in the 14th century—perhaps earlier—and this house was entirely rethatched in 1912. It was necessary to put on a new coat of thatch in February of this year, and the cost of this entire new coat amounted to £58 12s. The cost of repairs during the 24 years has not exceeded £1 per annum, so that the whole roof covering has been provided at a very moderate expenditure.

A few miles distant from this hamlet there is a cottage which had been allowed to get into bad repair. A house being required for a farm worker, reconditioning and reroofing was considered, and it was found that the cost of thatch was half the cost of tiles or slates. The cottage has been restored, and is let at an economic rent.

Fig. 4.—FRIENDS' MEETING HOUSE, FLOCK.

The accompanying illustrations show some thatched houses in Devonshire and Cornwall.

Fig. 1.—The Hall House (p. 774). The thatcher is at work putting on a new coat, after the under-coat had been on for 24 years. The porch was added in 1680, when a new leave was given by the manor to the tenant.

Fig. 2.—THE SCREEN, HALL HOUSE.

Fig. 2.—The interior. The view shows the oak screen which was below the gallery to which the public was admitted during the holding of the Manor Courts.

Fig. 3.—The interior of a barn, covered with thatch. On one of the beams of this building there is a board: "Repaired this far 10th March, 1758. Reed 550 nitches."

Fig. 4.—The exterior of a Friends' Meeting House, with a large covered linhay, in which the cobs were stabled whilst the meetings were being held. The interior is most charming in its simplicity, having been very little altered; the seats are of deal, some for the children very low, without backs. There is a gallery, approached by a tiny staircase.

These few notes and photographs attempt to show that the cheapest and most pleasing way to cover a roof is to use sound material with discretion and intelligent workmanship.

Fig. 3.—THE BARN, LITTLEHAM

An Architect's Estate.

Mr. Percy Francis Warren, of Top-o'-the-Hill, East Coker-road, Yeovil, architect, of the firm of Petter and Warren, who died on January 15, left property of the gross value of £7,431 9s. 5d., with net personalty £3,973 13s. 5d.

THE LONDON BUILDERS' CONFERENCE

INTERVIEW WITH THE NEW CHAIRMAN, SIR ALFRED HURST, K.B.E., C.B.

A REPRESENTATIVE of *The Builder* had an interview recently with Sir Alfred Hurst, K.B.E., C.B., the Chairman of the London Builders' Conference. Our representative inquired at the outset as to the objects of the new Conference, to which Sir Alfred replied: "With the many organisations connected with the building industry already in being, I admit that a clear case should be made out for any new one. The justification for the Conference lies in the present state of affairs in the building industry. There has, as you know, been a great expansion of the building industry since the War. I need not go into all the causes now, but the large Government subsidies for housing have undoubtedly been an important factor. Many new firms have entered the industry, others have increased the scale of their operations, and the result has been a growing intensity of competition among them. Alongside this process, and adding to the intensity of competition, has been a tendency towards more and more specialisation in building. Whereas 50 years ago a big contractor would carry out almost all the work on a big building by his own staff, now a large part of any contract is sub-let to specialist contractors. The steelwork, floors, windows, plumbing, heating, lifts, electrical installation, and many other sections of the work, generally amounting to as much as 60 per cent. of the whole, are commonly taken out of the builder's hands—although, incidentally, he may be well equipped for carrying out many of them—with the result that competition on the work falling to the building industry proper is further intensified. And in carrying out the reduced proportion of the work left in his own direct control, the builder to-day is faced with the prices of most of his materials fixed by powerful trade associations, and he is therefore no longer in a position to take advantage of similar competition among his suppliers. Under such conditions, is it surprising that competitive prices for building have in all too many cases become definitely unremunerative? Is it any wonder, therefore, that the builders have come to the conclusion that if their industry is not to fall into chaos it is high time that they tried to work together a bit more? The object of the Conference is to provide for this co-operation in any way which will be advantageous to the industry, and is not already provided for by existing organisations."

Q.—"But have not some of the big London builders been showing quite good profits?"

A.—"Yes, but not on competitive building. These profits are in the main due to other activities. Some building firms also take civil engineering work, some may have made money by speculative work on flats or offices, while all are able at times to negotiate profitable work without competition. It is the competitive work that has become so unremunerative. It is not without significance that according to the latest returns of the Bankruptcy Department of the Board of Trade, builders represented nearly 10 per cent. of the traders who failed in 1935; a higher proportion than for any other industry."

Q.—"Does this mean, then, that the London builders are out to get rid of competition in building?"

A.—"Most certainly not. We realise that competition is the best guarantee for efficiency and progress in this as in other industries, but one can have too much even of a good thing. In pre-war days we all thought that the only way to make sure of getting a fair price was to have open competition—the more the better. With our growing population and rapidly expanding overseas markets, trade was good and the competitive system worked well. Under post-war conditions, however, industry is finding that unregulated competition cannot always be relied on to fix the price fairly as between producer and consumer. When trade is booming and demand is outrunning the capacity of an industry, prices may rise to an exorbitant level. We saw that happen under the Addison Housing Scheme. On the other hand, when the capacity of an industry becomes much greater than the demand for its goods, reckless and wasteful competition may force down prices to an uneconomic level. This surge up and down is bad for trade, bad for employment; in fact, bad for everyone except the profiteer who skims the cream off the profits and clears out before the slump. One industry after another is learning that fair prices are better for both producer and consumer, and that it is often necessary to control competition to some extent in order to arrive at such prices. Some industries have only been rescued from impending bankruptcy by such action, and it is a sign of the times that in several major national industries the movement to regulate competition has had the definite support of the Government and Parliament. In the building industry we are anxious to retain as much competition as possible, but we want to ensure that it works fairly. The Conference has set its face quite as determinedly against excessive prices as against suicidal competition. I am told that in some parts of the country outside London, the application of the principles of our Conference would result in an immediate reduction in the present level of building costs. In aiming at a level of profit that is fair, and no more than fair, London builders are, I think, not only acting in the public interest but also in their own, for if prices become too profitable in any industry they inevitably cause a great expansion of capacity and the last state of that industry is worse than the first."

Q.—"But is not the architect likely to object to any attempt to regulate competition, as I presume his main object is to get the lowest tender?"

A.—"I do not think many architects would accept that as their main object. The number of architects who deliberately seek to exploit the present conditions by getting competitive tenders below cost is very small, and I would say that the aim of the vast majority of them is to get the work done well at a fair and reasonable price. The architect acts in a dual capacity. First, he has the position of arbitrator between his client and the builder, and it is quite a mistake to think that he is solely concerned to defend his client's interests and opposed to those of the builder. Secondly, the architect is also a collaborator with the builder in meeting the needs of the public, and it would be wholly opposed to his own interests that the prosperity of the building industry should decline owing to suicidal competition. Apart from this, architects also recognise that it is very unsatisfactory to have a builder working under them at an unremunerative price. Relations tend to be uncomfortable, the builder is all the time trying to get as near as possible to the bare minimum of the specification in order to squeeze a bit of profit if possible out of the job, and the architect has to be constantly on the watch to see that he does not step over the line. This does not make for happy collaboration or for good building. In fact, one of the causes leading to the formation of the Conference was a feeling on the part of some of the more responsible builders that the present competition was forcing down the standard of building. In this connection I may mention the well-known fact that an architect not infrequently advises a client who wants work of high quality carried out smoothly and speedily to arrange satisfactory terms with a selected builder without going to tender at all."

Q.—"But does not all this mean that building will cost more?"

A.—"This may be so in some cases, but by no means in all. The Conference certainly aims at the elimination of the unprofitable contract, but this does not mean that the general level of building prices will be increased. In the cases of non-competitive work there should be no increase. In other

Photo: Bassano, Ltd.

SIR ALFRED HURST, K.B.E., C.B.,
Chairman of the London Builders' Conference

cases where the builder is not at present getting a fair return, the extra amount necessary to give him a reasonable profit comes to very little on the whole building. Against this we hope to set off considerable savings in various directions; by the elimination of wasteful competition among builders, by co-operative arrangements with the manufacturers and suppliers of materials, by extending competition to a greater proportion of the cost of a building. The net result should be better building at no appreciable increase of cost and a better organised and reasonably prosperous building industry."

Q.—"Is this development limited to London, or is it extending to other areas outside?"

A.—"My direct concern is with the London Building Area, which is roughly the district comprised within a 15-mile radius from Charing Cross, but similar action has been and is being taken by the builders in other areas, and we look forward in time to creating a national joint body which shall co-ordinate the interests of the various Conferences."

Q.—"Now may I ask one or two questions of a more personal character? I understand that you are giving your whole time to the work of the Conference, and have definitely left the Civil Service. What will be your duties as chairman? Have you had any previous connection with the building industry?"

A.—"To answer your last question first, I haven't, but it will be no part of my job as chairman to teach the London builders how to build. They know all there is to know about that. My job, as I understand it, is to help them to work together, assisting them in their difficulties both within the Conference and outside. After all, human nature is very much the same in the building industry as in others with which I have been intimately concerned in the last four years, and many of their problems are in reality very similar. Probably the greatest problem confronting industry to-day—the building industry no less than the others—is how best to reconcile the maintenance of a fair price with such competition as will bring the best firms to the front and ensure progress and efficiency. In working to this end I have, as I conceive, a twofold task. Within the industry I have to use any influence I possess to secure fair play between one builder and another and between what I may call the big fellows and the others. Outside the industry I seek to develop co-operation with the suppliers of our building materials on the one side and with public authorities, architects, quantity surveyors, engineers and similar professional classes on the other. These are all interested along with ourselves in the great task of providing accommodation for our many-sided national activities. The building industry is large and very complex, but the advantages to be gained by co-operation as compared with a reversion to the old individualism are so great and so manifest that granted the co-operation of other interests I have no doubt of the success of the Conference. Some industries are largely dependent on the export trade, and their great difficulty is the competition of low-wage countries overseas. Others are troubled with the need for large reconstructions of expensive plant in order that they may be brought to the modern level of efficiency. Some again are faced with difficulties of supply of raw materials, others with definite loss of markets. The building industry is fortunate in having little or nothing of such troubles, but it has its own peculiar difficulty in the ease with which new firms can start up in the industry. It is here that we need the co-operation of the architect and the suppliers of our materials. We ask for no closed ring in the industry, but we do ask for their assistance in so regulating the industry that is can best serve the nation at all times."

R.I.B.A. Conference, Dinner and Reception.

The annual conference of the R.I.B.A. will take place in June, 1937, at Leeds, at the invitation of the West Yorkshire Society of Architects. The annual dinner will take place in February, and the President and Council's Reception in May.

CORONATION DECORATIONS FOR BOND STREET

THE students of the Architectural Association were invited by the Bond-street Traders' Association to submit schemes in competition for the decoration of Bond-street on the occasion of the Coronation next May. Prizes to the total value of £60 were offered by the Bond-street traders, and the competition attracted considerable attention.

About 150 schemes were submitted in sketch form in the preliminary round, and from these a dozen finalists were chosen, who worked out their ideas in greater detail. These designs were then judged by a jury consisting of Mr. L. H. Bucknell, F.R.I.B.A. (President of the A.A.), Mr. Grey Wornum, F.R.I.B.A., four members of the Bond-street Traders' Association, one member of the Royal Warrant Holders' Association, and four members of the School staff.

The jury awarded the first prize to the scheme submitted by Mrs. Richard Acland; the second and third prizes were combined and were awarded to the scheme submitted in partnership by Messrs. Kadleigh and Penoyre and the one submitted by Messrs. Sturrock and Wheeler.

The jury decided that the five winners be asked to co-operate in the carrying out of the winning scheme, the principal ideas of which, however, should be retained.

The successful designs, which are on exhibition at the Building Centre, New Bond-street, W., show a distinct break from the hackneyed or stereotyped schemes of a few years ago, when quantity came before taste and colour, and there were few, if any, preconceived ideas. The organising of a competition gave the students an opportunity to put their training and ideas to the test. The winning design by Mrs. Acland, a fourth-year student, is a simple one, broad in its treatment and good in colour, with no obstruction of traffic or of pedestrians. The banners and tiered masts in perspective looking up Bond-street would be very striking. It is proposed to fill the tiers with natural flowers. The masts, which are 30 ft. apart, and attached to the front of the buildings, it is suggested should be made of telescopic steel; consequently the structural cost of the scheme should not be great. The design is well drawn. One drawing shows a daylight and the other a night effect.

The schemes placed "equal second" have many good points. One suggests quite a Continental gaiety, as we understand it, shown by a clever drawing, the figures being executed with great skill.

A certain similarity is shown in a number of the drawings on exhibition, notably in the use of hanging banners; but in addition some have hangings crossing the road, which obscure to a certain extent a general view of the street, which the winner obtains. The colour suggestions are good and well shown. It may be added that any of the designs are available should they appeal to others who are seeking decorative schemes.

The Bond-street Traders' Association, on the recommendation of the Architectural Association, will invite all the traders to restrict their own decorations to the use of flowers in window-boxes. It was also thought that flowers might be used in the horizontal trays on the masts. The Traders' Association will also issue a request that all advertising flags and other easily removable signs should be taken down for as long as the decorations are in position.

"Talks" on Homes and Town Planning.

Mr. Boumphrey is shortly to broadcast two "talks" in the "Your Home and Mine" series, on Thursdays, at 2.5 p.m., as follows: November 5, The Earliest English Homes. November 12, Where our Homes are and Why. From the Northern Ireland station an important series of winter talks on Town Planning, by Mr. Maxwell Fry, begins on November 2.

R.I.B.A. SESSIONAL MEETINGS

Following is the programme of the R.I.B.A. meetings arranged for the session 1936-37, to be held at 66, Portland-place, W.:—

November 2.—8.30 p.m. President's Inaugural Address. Presentation of the London Architecture Bronze Medal, 1935, to Mr. R. H. Uren.

November 16.—"Rehousing from the Slum-dweller's Point of View," by Miss Elizabeth Denby.

November 30.—"Architectural and Planning Developments at the Seaside," by Mr. Wesley Dougill, M.A., B.Arch.(Liverpool).

December 14.—Musical evening, arranged by the Social Committee.

January 11.—Award of Prizes and Studentships. Criticism by Mr. H. Austen Hall on works submitted for Prizes and Studentships. Announcement of the Council's nomination for the Royal Gold Medal, 1937.

January 25.—8.30 p.m. Presentation of Medals and Prizes by the President. Address to Students by Mr. T. A. Darcy Braddell, Chairman of the Board of Architectural Education.

February 8.—Social evening, arranged by the Social Committee.

February 22.—"Building Finance and Architecture," by Mr. T. P. Bennett.

March 8.—"Town and Country Planning under the Act," by Mr. G. L. Pepler, F.S.I.; and "The Working of the Advisory Panels System," by Mr. G. H. Jack, M.Inst.C.E., F.S.A.

March 22.—"The British School at Rome," by Professor W. G. Holford, B.Arch.(Liverpool), and Mr. A. G. S. Fidler, B.Arch.(Liverpool).

April 12.—8.30 p.m. Presentation of the Royal Gold Medal.

April 26.—"Recent Architecture in France," by Mr. H. S. Goodhart-Rendel.

May 10.—One Hundred and Third Annual General Meeting.

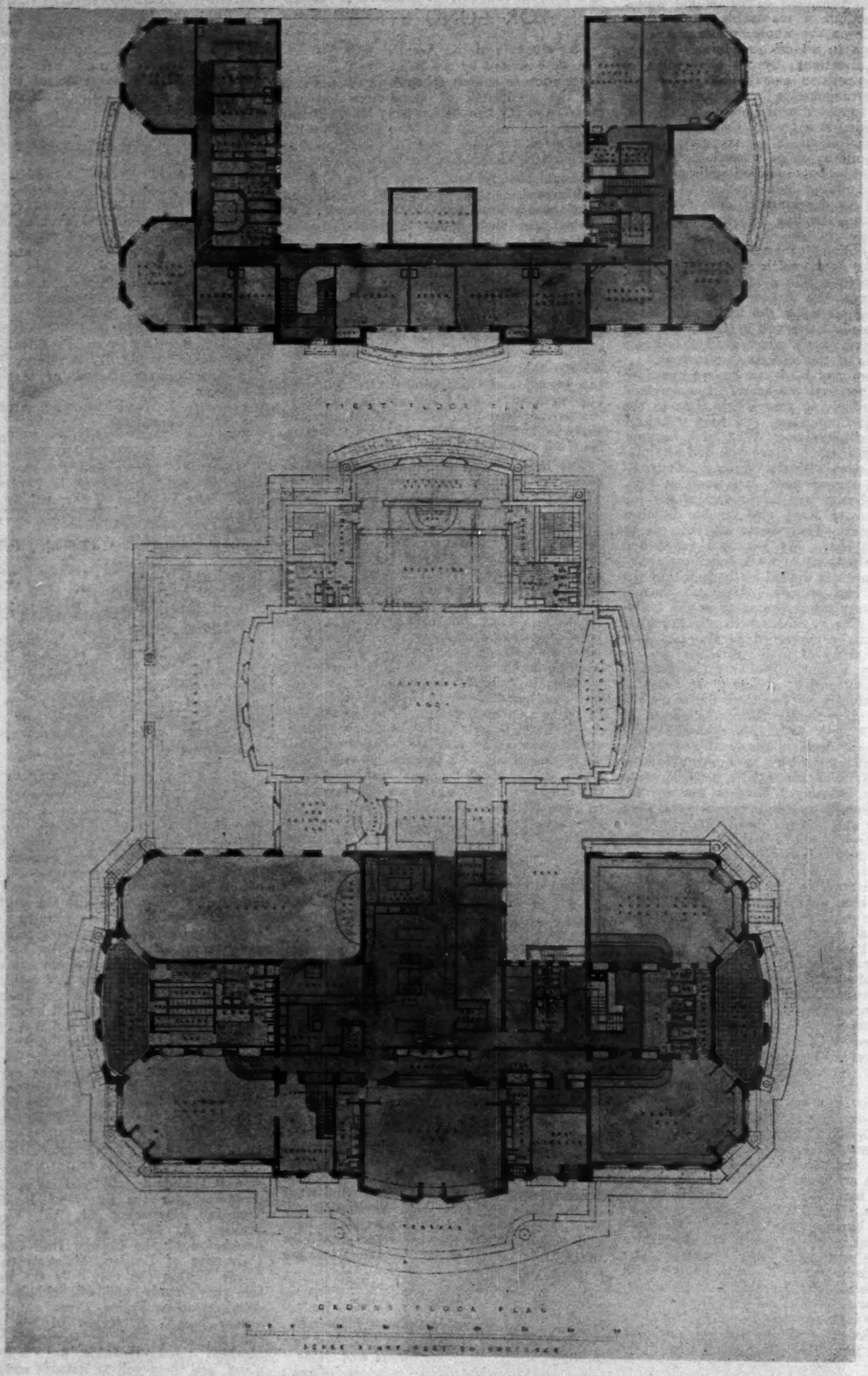
June 21.—Announcement of results of annual elections of Council and Standing Committees. Informal discussion on matters of professional interest.

R.I.B.A. DRAMATIC SOCIETY

The R.I.B.A. Dramatic Society have chosen for their next production on November 26 to 28 a Hungarian play, "Liliom," by Francis Molnar. "Liliom" (a lily, slang word for a "tough"), translated into English by Benjamin F. Glazer, has lost none of its original character, and can be placed equally among the other works of the author, who is well known in his own country as a playwright. It will be interesting to watch the development of this production by a society whose many activities include not only acting but also the designing and making of the scenery and the lighting for all their productions. The performances will be given in the Henry Jarvis Hall of the R.I.B.A., 66, Portland-place, W.1. Tickets, price 5s. and 3s. 6d. (numbered and reserved), and 2s. 4d. (unreserved) can be obtained by members of the R.I.B.A. from Miss E. Caldicott, at the Architectural Association, the R.I.B.A., Office or from any member of the Society.

THE LE PLAY SOCIETY

The Le Play Society, of which Lord Meston is now President, will hold its sixth annual conference for the Study of London from Thursday, December 31, till Wednesday, January 6, 1937, at College Hall (by permission of the College Hall Committee), University of London, Malet-street, W.C.1. "Life Within the City" is the subject of this year's study, and will include the Civic Administration, Police, Press, etc., of "the square mile." A review of the Society's current year's work in Roumania, Poland, Morocco, Czecho-Slovakia, etc., will also be given, and there will be lectures and an exhibition of survey work. The annual dinner, at which Lord Meston will preside and speak, will be on New Year's Day. Full particulars of the Society's arrangements may be obtained from Miss Margaret Tatton, 58, Gordon-square, W.C.1.

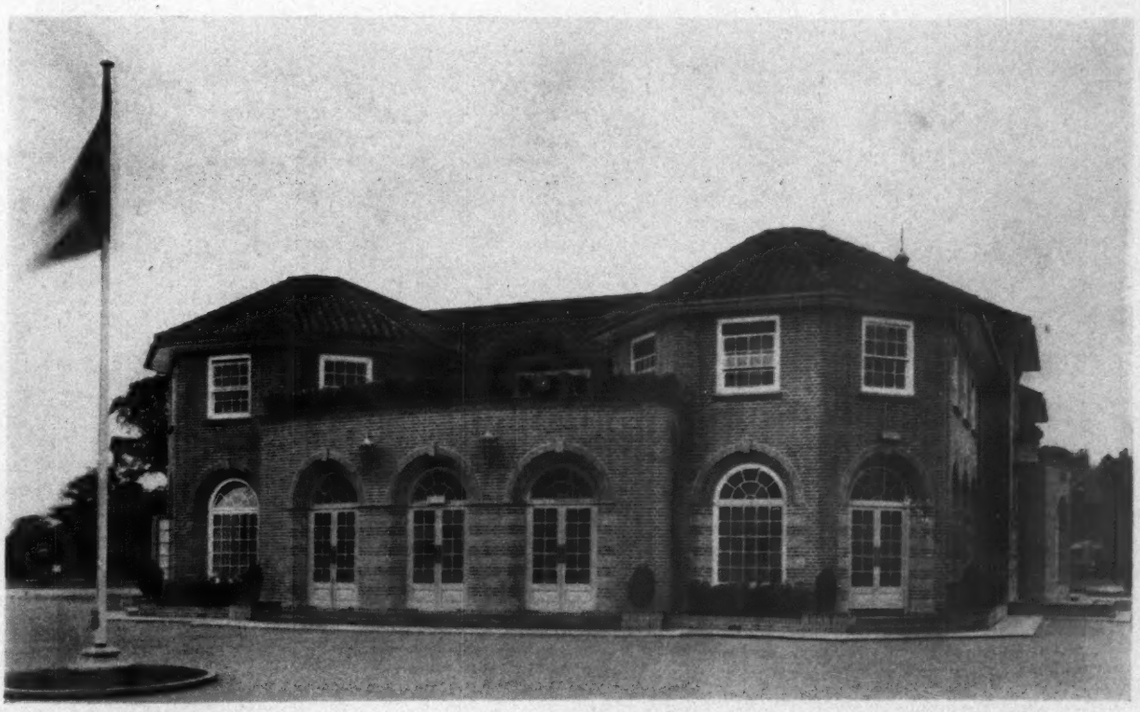


"THE MYLLET ARMS," PERIVALE.

MR. E. B. MUSMAN, B.A., F.R.I.B.A., Architect.

(See page 790.)

MAIN ELEVATION.



ENTRANCE TO RESTAURANT.

"THE MYLLET ARMS," PERIVALE.

MR. E. B. MUSMAN, B.A., F.R.I.B.A., Architect.

(See page 790.)

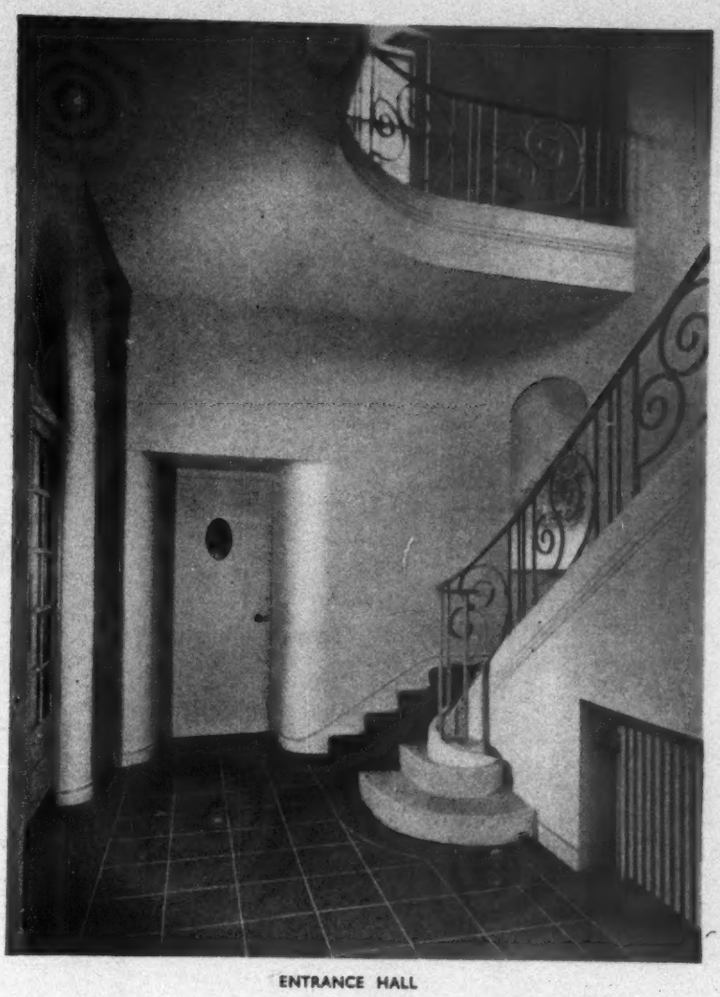
THE RESTAURANT.

ENTRANCE TO RESTAURANT AND SALOON LOUNGE.

"THE MYLLET ARMS," PERIVALE.

MR. E. B. MUSMAN, B.A., F.R.I.B.A., Architect.

(See page 790.)



ENTRANCE HALL

SALOON LOUNGE

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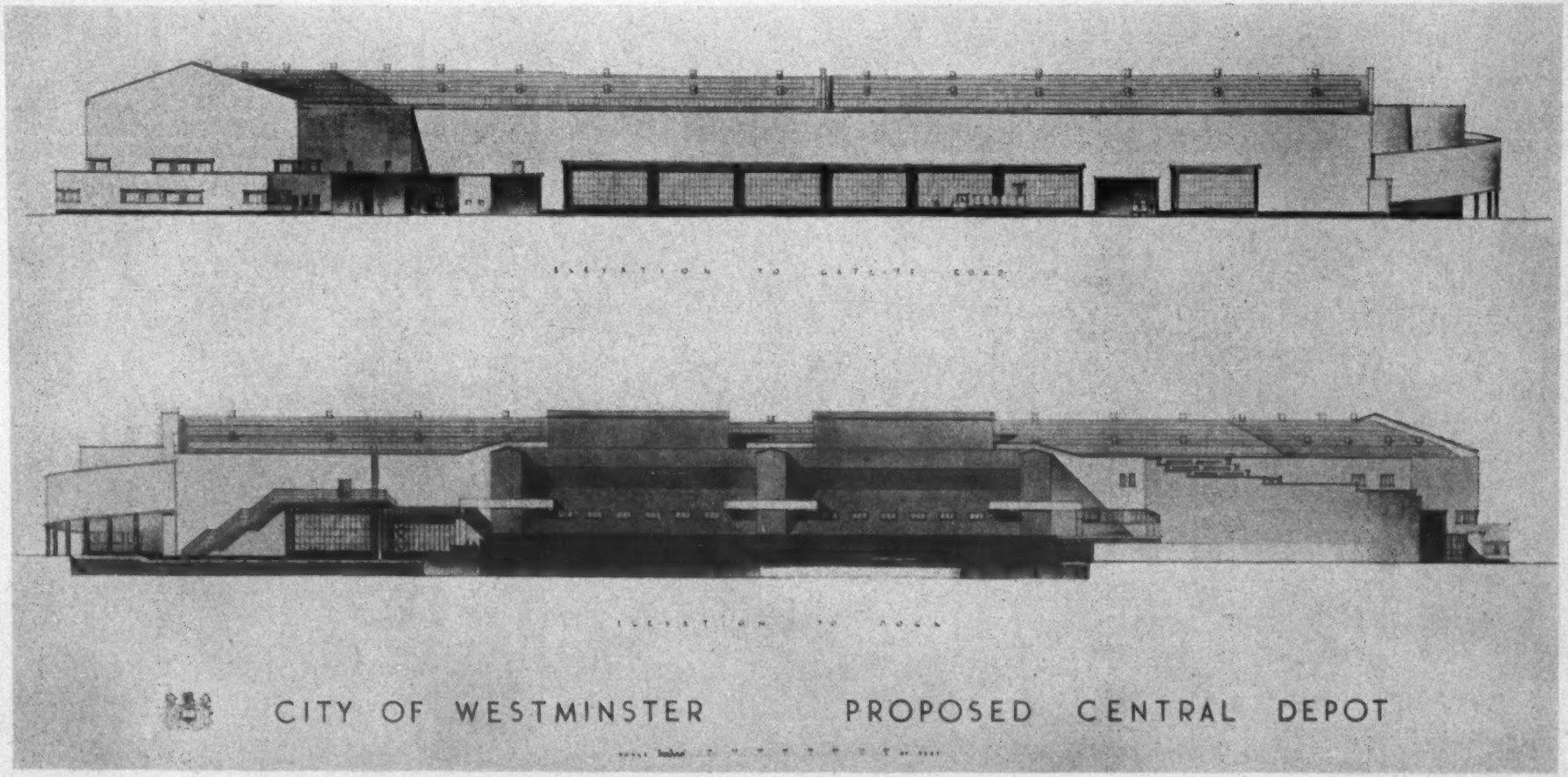
MR. E. B. MUSMAN, B.A., F.R.I.B.A., Architect.

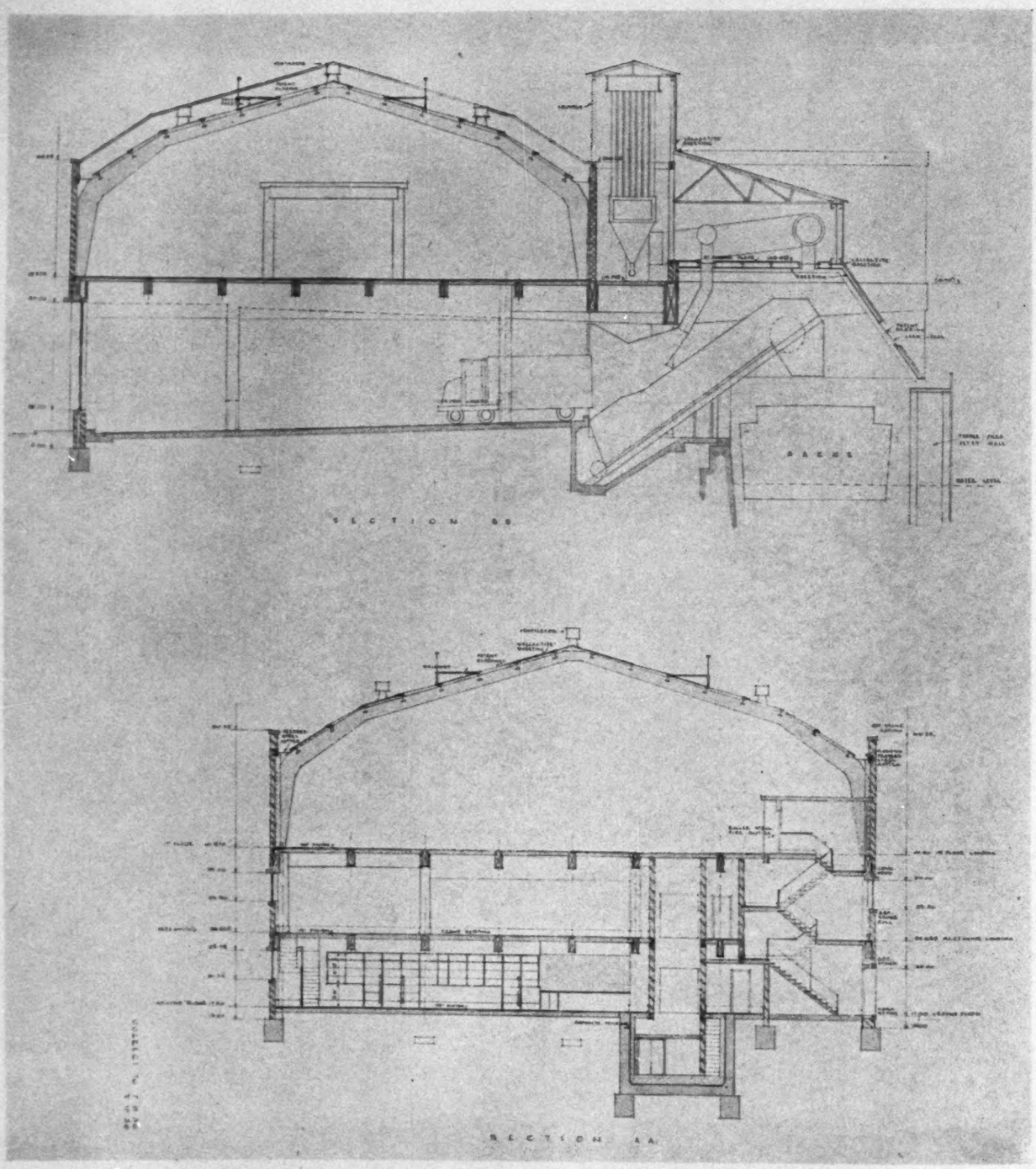
(See page 790.)



CENTRAL DEPOT FOR THE HIGHWAYS DEPARTMENT OF THE CITY OF WESTMINSTER.

MR. G. GREY WORNUM, F.R.I.B.A., Architect.

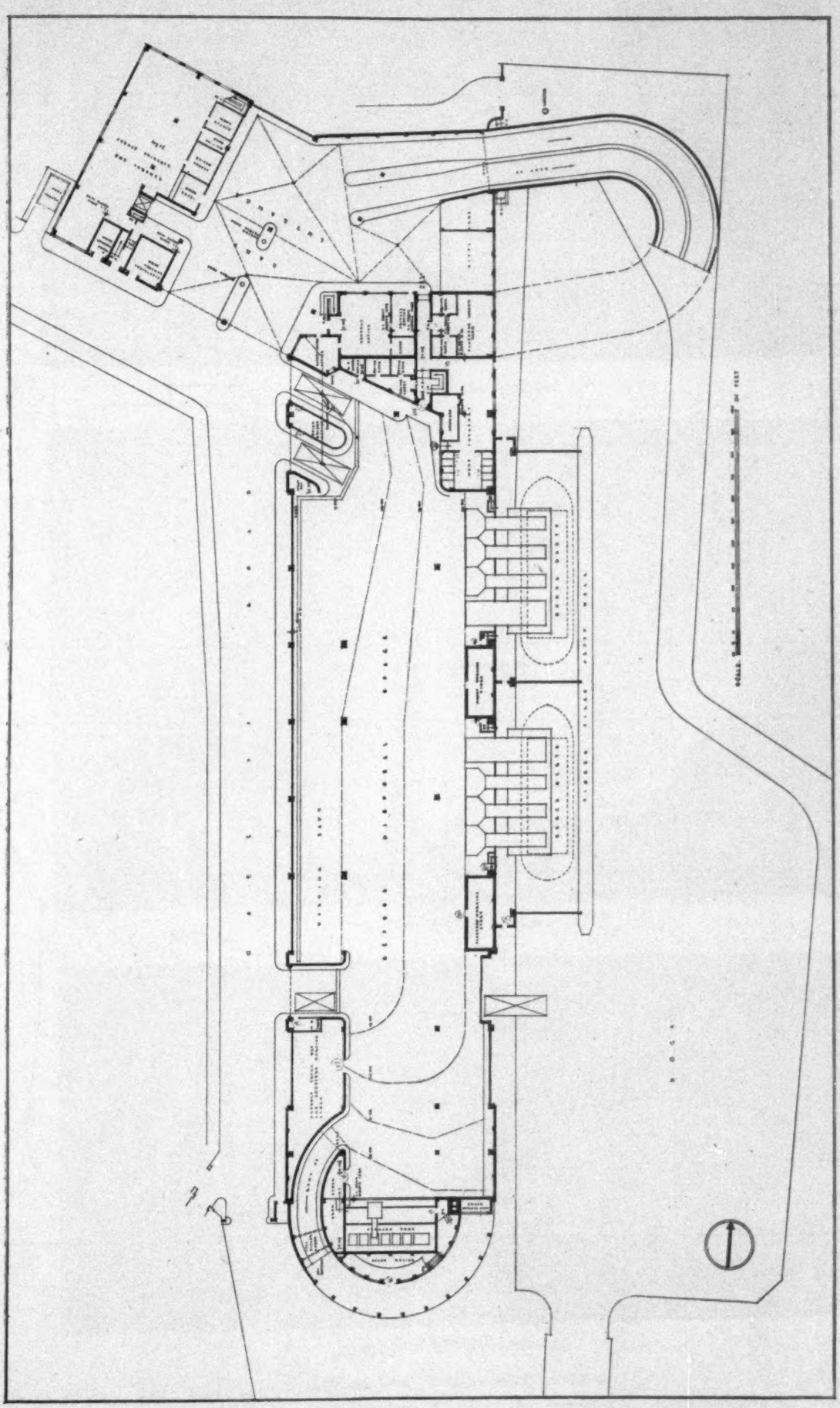
(See page 792.)



CENTRAL DEPOT FOR THE HIGHWAYS DEPARTMENT OF THE CITY OF WESTMINSTER : Sections.

MR. G. GREY WORNUM, F.R.I.B.A., Architect.

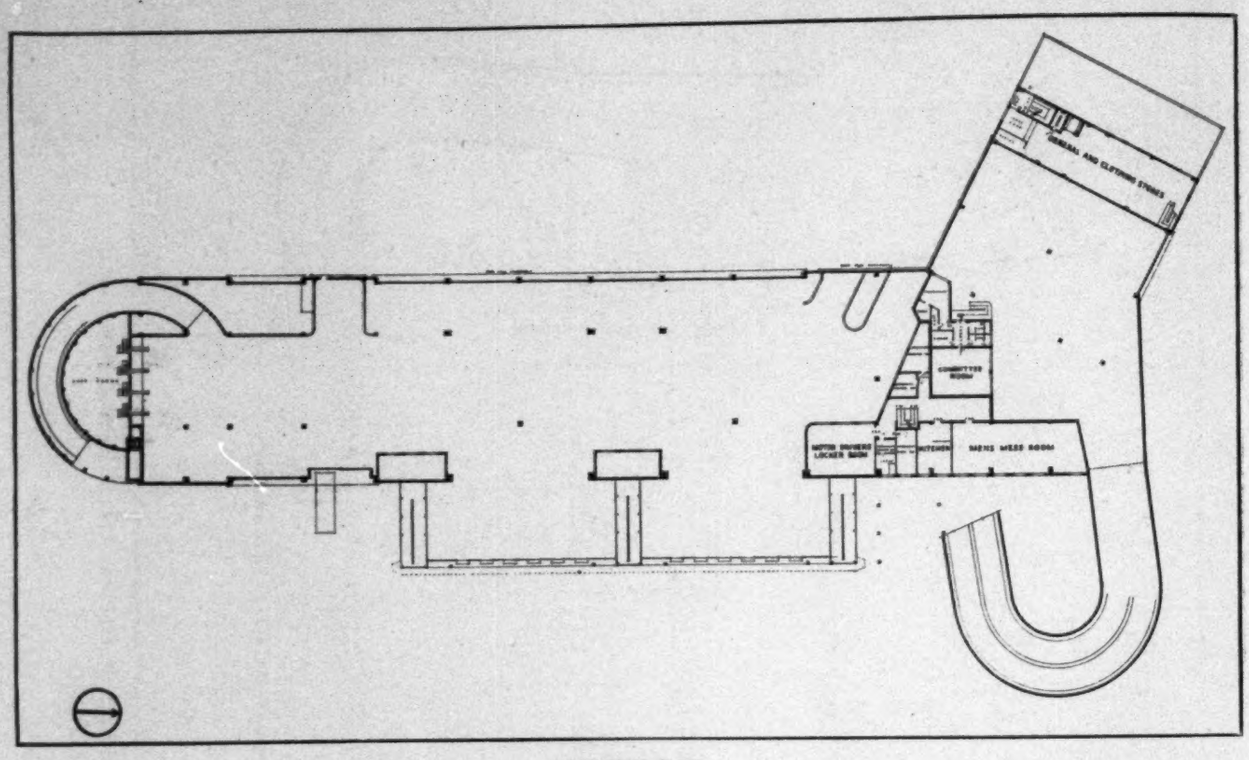
(See page 792.)



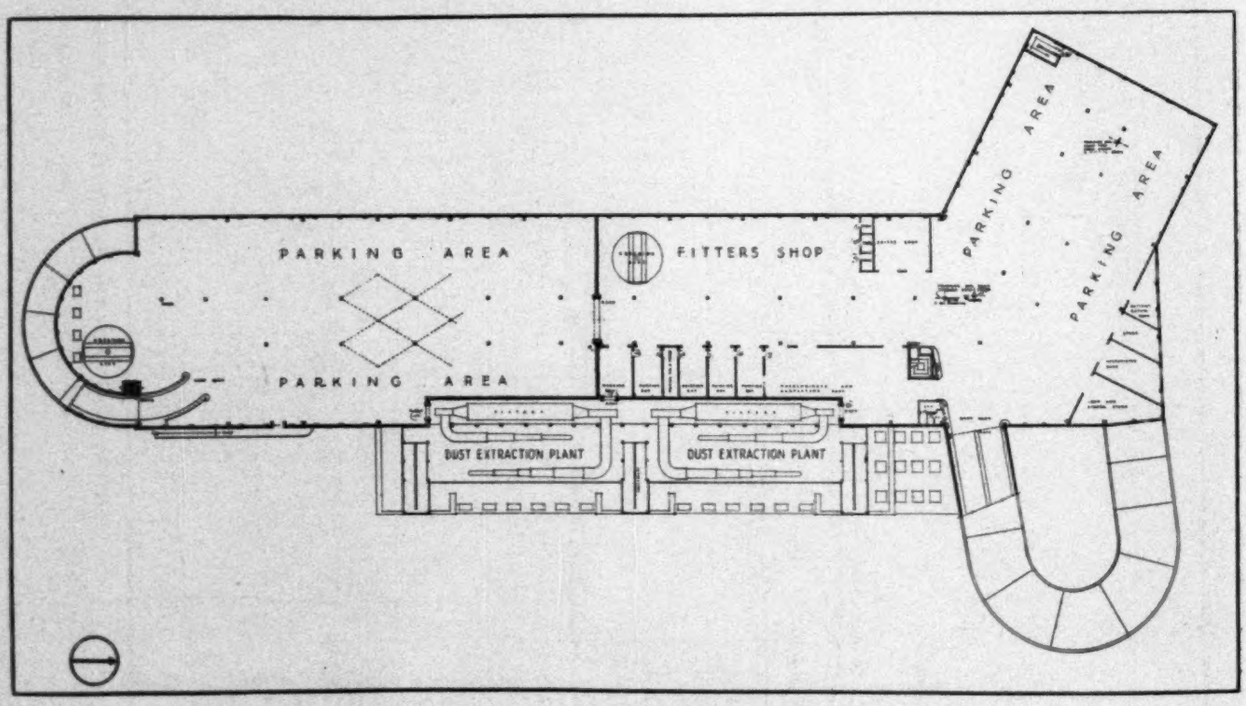
CENTRAL DEPOT FOR THE HIGHWAYS DEPARTMENT OF THE CITY OF WESTMINSTER : Ground-floor Plan.

MR. G. GREY WORNUM, F.R.I.B.A., Architect.

(See page 792.)



MEZZANINE PLAN.



FIRST-FLOOR PLAN.

CENTRAL DEPOT FOR THE HIGHWAYS DEPARTMENT OF THE CITY OF WESTMINSTER.

MR. G. GREY WORNUM, F.R.I.B.A., Architect.

(See page 792.)

THE ODEON THEATRE, SWISS COTTAGE.

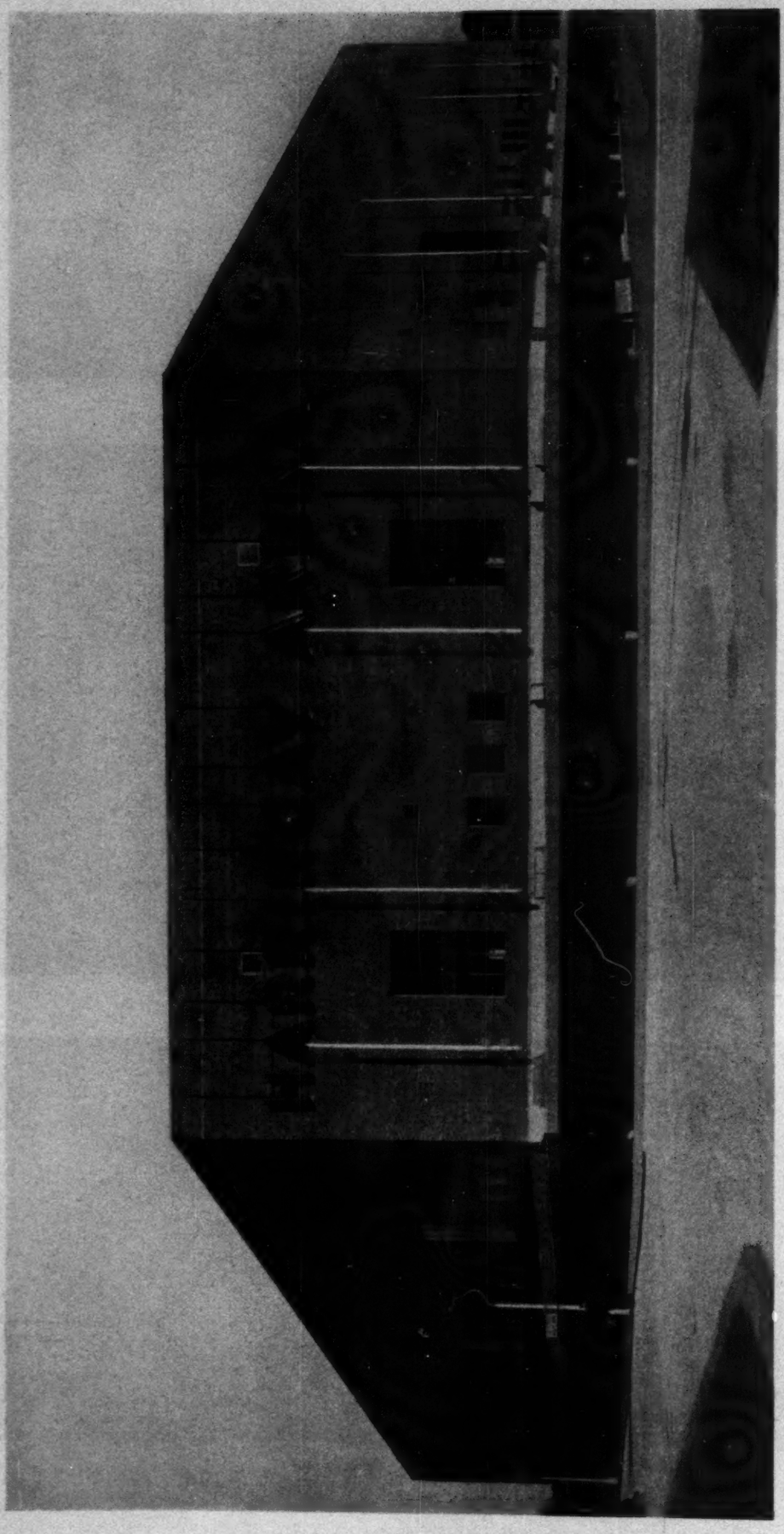
THE ODEON THEATRE, BURNLEY.

THE ODEON THEATRE, MORECAMBE.

DESIGNS FOR THREE NEW CINEMAS.

MR. HARRY W. WEEDON, A.R.I.B.A., Architect.

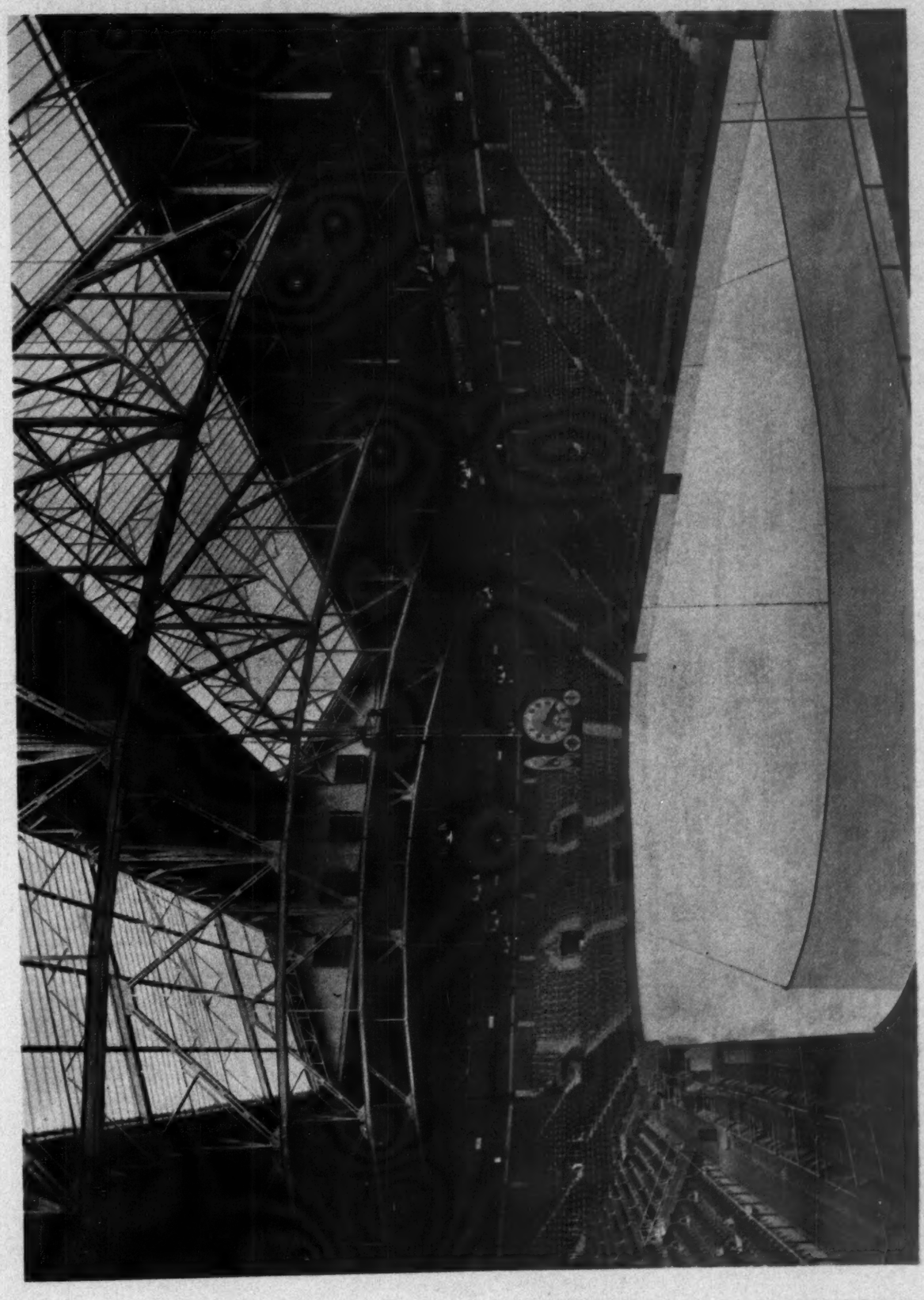
(See page 791.)



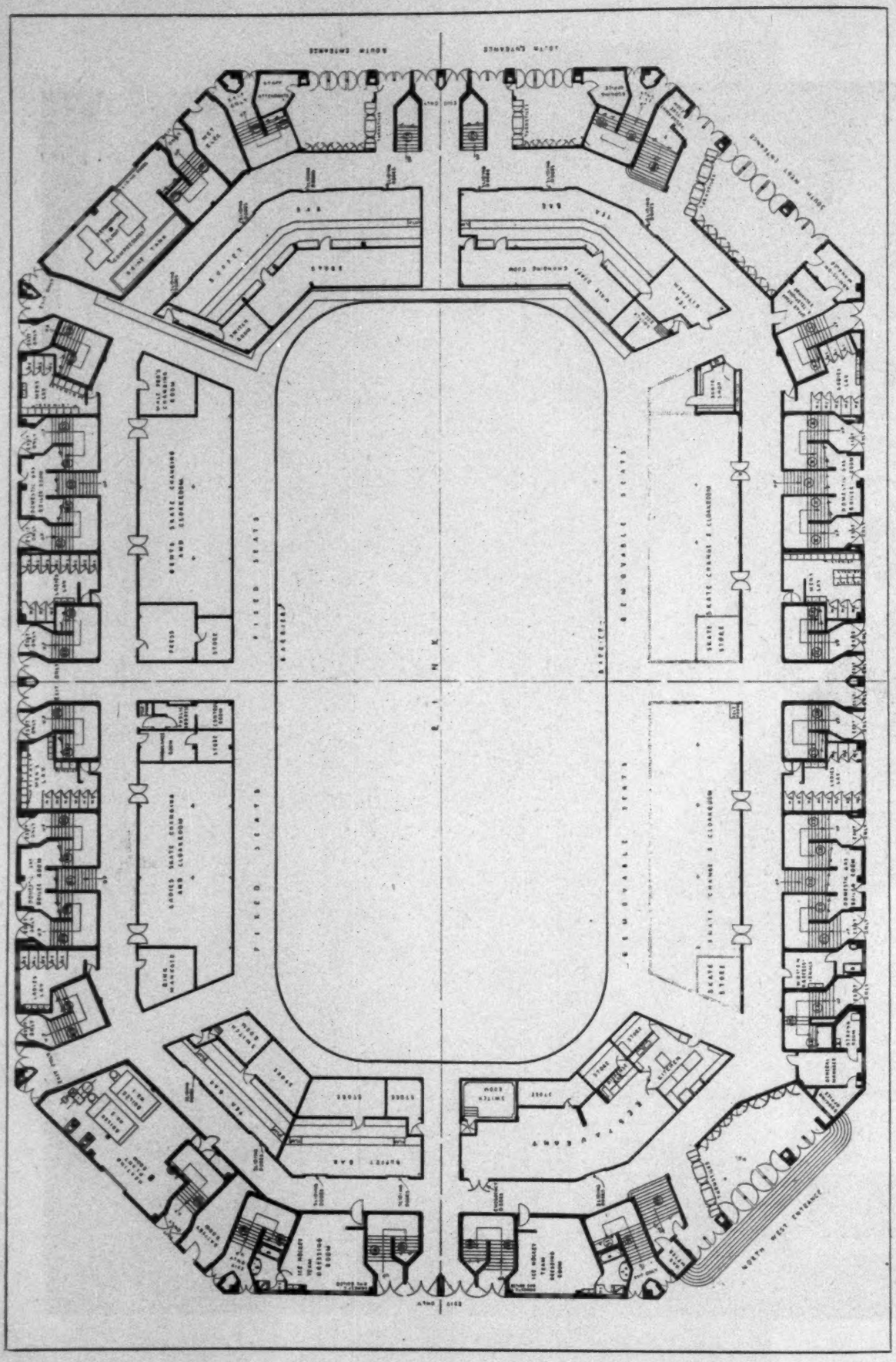
THE HARRINGAY ARENA.

DR. OSCAR FABER, O.B.E., M.INST.C.E., Designer and Consulting Engineer.

(See page 790.)



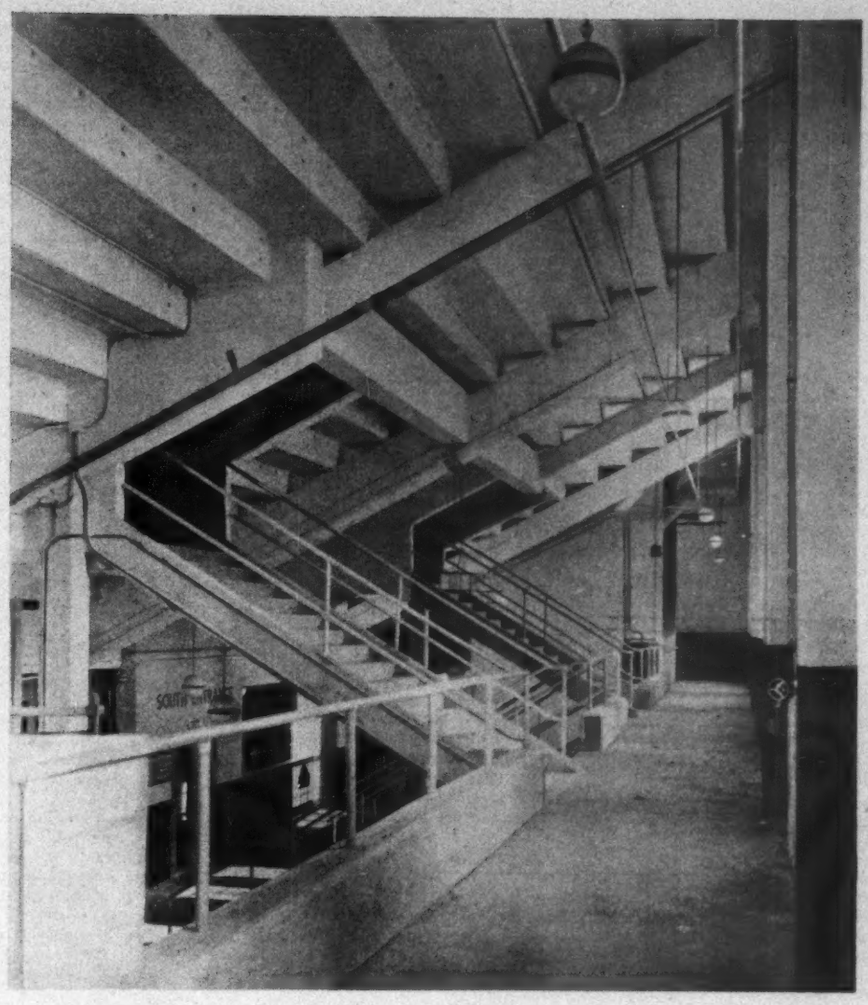
THE HARRINGAY ARENA : Interior View from End Tiers.
DR. OSCAR FABER, O.B.E., M.INST.C.E., Designer and Consulting Engineer.
(See page 790.)



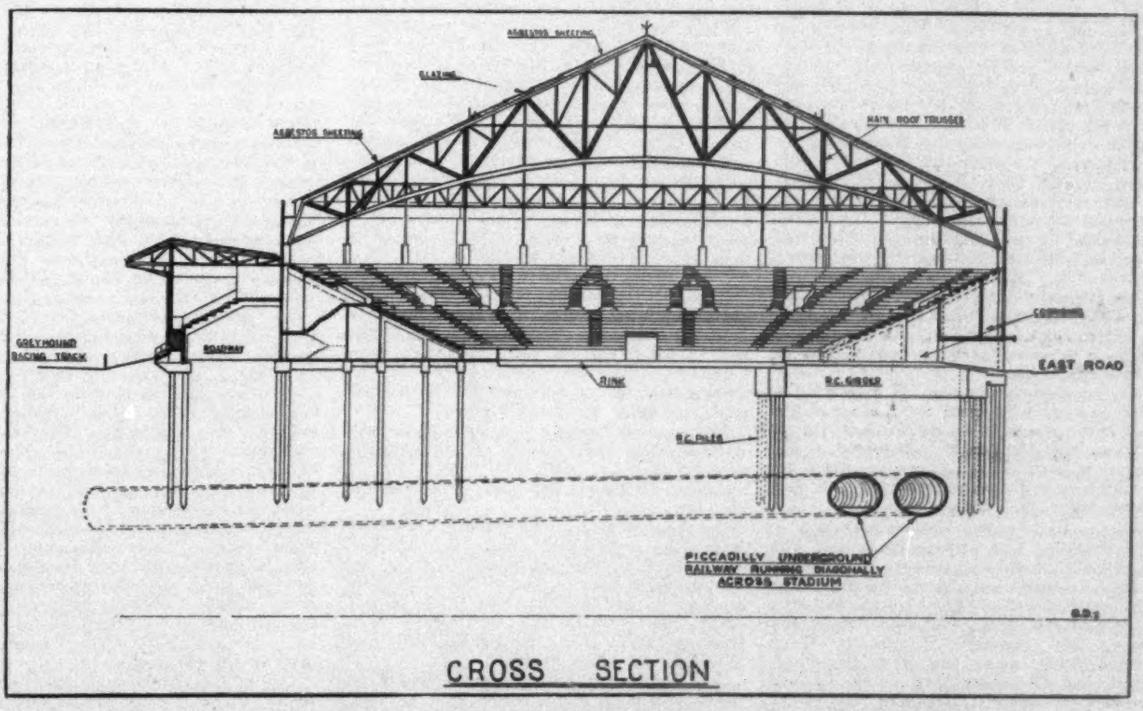
THE HARRINGAY ARENA: Ground-Floor Plan.

DR. OSCAR FABER, O.B.E., M.INST.C.E., Designer and Consulting Engineer.

(See page 790.)



CORRIDOR, SHOWING STAIRCASES TO TIERS.



CROSS SECTION

THE HARRINGAY ARENA.

DR. OSCAR FABER, O.B.E., M.INST.C.E., Designer and Consulting Engineer.

(See page 790.)

ILLUSTRATIONS

PLATES

"The Mylles Arms," Perivale.

This recently opened house, for Messrs. Benskin's Watford Brewery, Ltd., is the first part of a scheme of development on a triangular plot of land bounded by Western Avenue, Horsenden Lane and Perivale Lane on the south side of Western Avenue. The elevations are in 2 in. Bedfordshire grey brickwork with tile dressings to the windows and doorways, all in the same colour and texture. The roof is covered with Italian tiles and the twin towers are surmounted by copper and lead finials supporting pennants, which are based in design on the trade-mark of the company.

The external paintwork is cream and the entrance doors are in light sea green. The rainwater pipes and heads are in cast lead and have been left their natural colour. A feature has been made of built-in flower boxes, both at the ground-floor and the first-floor levels.

The accommodation provided includes a central saloon bar and saloon lounge, restaurant, off sales, public bar and a games and meal room *en suite* with the public bar. On the first floor there are two private dining rooms, a number of hotel bedrooms, tenants' quarters and accommodation for staff.

The kitchen and services have been planned on generous lines and will eventually serve the future extension, which is indicated on the plan and takes the form of a large assembly hall which can be used either in connection with the hotel or let privately as a complete unit with its own entrance foyer, cloakrooms, lavatories and service.

The saloon bar is panelled to a height of 7 ft. in flush laminated wood veneered with blistered mahogany. The saloon lounge is flush panelled, but in teak. The ceiling in this room is vaulted and intercepting vaults have been formed to the circular-headed windows and doors. Between the saloon lounge and the restaurant a spacious entrance vestibule has been provided which makes the restaurant and lounge *en suite*, and in addition gives access to the men's and women's cloaks.

The restaurant has a vaulted ceiling with intercepting vaults, similar to those in the lounge, and plain wall surfaces. The central heating of this room is by means of large flush panels, which have been painted in plastic paint together with the rest of the wall surfaces, which are in plaster. The colour scheme generally in the room is a delicate shade of Beauvais pink, with a slight contrast in the colour of the woodwork, and the whole room is dominated by a mural painting, occupying the whole of the west wall, executed by Mr. Cosmo Clark. The floor in this room is laid in maple and the room is equipped for public dancing.

The public bar is panelled in moulded oak boards, and the games room is tiled to a height of 7 ft. The floors of the whole of the bars with the exception of the restaurant are laid in "Korkoid." Each bar is equipped with wireless and electric clocks. Mechanical extraction provides adequate ventilation to all the main rooms.

The sign depicts the coat of arms of the Mylles family, who were the Lords of the Manor in the fifteenth and sixteenth centuries, and whose name has been perpetuated in the name of the new house. It was designed by the architect and the carving was executed by Miss Gertrude Hermes.

The general contractors were Messrs. E. H. Burgess, Ltd., Drury Lane, and The Parade, Solihull, Birmingham, and the following firms were also associated with the work: Proctor and Lavender, Ltd., bricks; Roberts, Adlard and Co., Ltd., roof tiles; Field and Palmer, Ltd., asphalt; Laminated Wood Products, Ltd., doors and flush panelling; Gaskell and Chambers, Ltd., counters and pewtering; Dorman, Long and Co., Ltd., steelwork; Helical Bar and Engineering Co., Ltd., hollow tile floors; Rashleigh, Phipps and Co., Ltd., electrical installation; Abbey Heating Co., heating and ventilation; Thos. Parson and Sons, Ltd., paint and distemper; Cope and Co., Ltd., wall tiling; Crittall Manufacturing Co., Ltd., lantern light and metal windows; Taylor, Pearse and Co., ironmongery; Galeworthy, Ltd., electric light fittings, lettering bronze balustrade; Cashmore Art Workers, finials and lead work; Morris-Singer Co., Ltd., illuminated sign; Rowley Galleries, Ltd., furniture; C. S. Heal and Son., Ltd., carpets, curtains, etc.; Norman Davis, wireless and clocks; Express Lift Co., Ltd., lifts; Kelvinator, Ltd., refrigeration; Gas Light and Coke Co., kitchen equipment.

Mr. E. B. Musman, B.A., F.R.I.B.A., is the architect.

Westminster City Council Depot.

An article on this work appears on page 792. Mr. G. Grey Wornum, F.R.I.B.A., is the architect.

Harringay Arena.

This building is an application of engineering to the construction of a building designed to fulfil the essential functions of an arena for exhibitions of ice hockey and similar sports. It is octagonal on plan, and is completely free from internal columns or supports of any kind which would mar the vision from any portion of the arena, and every seat has a perfect vision.

To achieve this result the roof trusses, of nearly 250 ft. span, span direct on to the outside walls, which are stiffened with steel stanchions, which in turn carry steel rakers supporting the reinforced concrete stepping. The steel trusses were considerably lightened and made more graceful by the use of high tensile chromador steel, and an attempt has been made to make the design of the roof both pleasing and efficient without adding any additional weight of material. The steelwork was carried out by Messrs. Dorman, Long and Co., Ltd.

The site consists of 30 ft. of tipped rubbish overlying blue clay, in which two tube railways (extension of the Piccadilly line to Cockfosters) run at a depth of about 35 ft. to 45 ft. below the ground. It was, of course, necessary to avoid any loads coming on to the tube railways, and the tipped rubbish was not sufficiently consolidated to carry the weight even if a raft were employed to spread it over the area of the site, since careful tests indicated a settlement of 6 in. or so after a few days' loading to quite small pressures.

Piling consequently had to be resorted to, and "Vibro" piles by the British Steel Piling Company were used, most of the piles being taken down to a depth of 45 ft. and bulbed so as to make them good for a safe load of about 60 tons per pile. Between the groups of piles reinforced concrete girders were constructed below ground to span across both tubes and to carry the stanchions of the arena, which carry a total load of approximately 300 to 350 tons. These girders are of approximately 60 ft. span, and the largest of them 10 ft. by 5 ft. in section.

The stepping consists of reinforced concrete cast *in situ* risers and treads 3 in. thick, and spanning horizontally between the steel rakers. The steppings are 2 ft. 4 in. tread and 13 in. to 14 in. riser, which has been found to make for the most economical arrangement of seats consistent with good angle of vision.

The ice rink consists of a layer of concrete covered with cork, a layer of waterproofing material, 2 in. of sand, and, finally, 4 in. of concrete containing the brine pipes at 4 in. centres.

On the east side of the stand a grandstand facing the greyhound racing track has been constructed approximately 250 ft. long, and the space under this stand forms a 30 ft. circulating road widening out at the ends to 50 ft., on to which the innumerable exits from the arena give, to enable the great crowd to get away quickly.

The building contains 64 exits, and it has been calculated that on the basis of Home Office methods of calculation the 11,000 people could leave the building in two minutes.

Under the stepping there is a circulating corridor connecting all staircases and gangways, and provision for rooms for skate changing, bars, tea bars, restaurant, lavatories, offices, shop, and dressing-rooms. Many of these are mechanically ventilated.

On one side of the rink the lower five rows of steppings consist of removable steel, so that when it is desired to use the hall for such things as dancing, exhibitions, etc., these can be removed, and there is then sufficient headroom to make the rink space continuous, with a large area of space under the stepping where tea and refreshments can be served while preserving a full view of dancing or other activities proceeding on the rink space, for which a removable timber floor of maple is provided.

The external walls consist of 9 in. of Warley brick laid in a cement-lime-sand mortar, and are devoid of any embellishments other than a little care in the arrangement of bricks.

A reinforced concrete cantilever canopy runs round the outside so as to give shelter at all entrances and exits, as well as light at night time from the front edge of the canopy. All exit doors are turquoise blue and all entrance doors primrose yellow, blue and yellow being the colours of the Harringay ice hockey teams. The same colours are used extensively in the internal decoration.

Immediately inside the external wall a mezzanine circulating corridor nearly quarter of a mile long is provided at a height of about 10 ft. above the ground, and this again has various lavatories, bars and offices leading from it, as well as inter-connection between the various staircases.

The roof consists of asbestos "Super-Six" sheeting supplied and fixed by Messrs. Universal Asbestos Co., under the supervision of their manager, Mr. Branston. Two lengths of patent glazing supplied by Messrs. Mellowes, each 200 ft. by 40 ft., give excellent daylight into the rink.

The heating and ventilation, for which Messrs. Rosser and Russell were the contractors, consist of 20-unit heaters arranged above the top step of the seating against the outside walls, fed by water at a temperature up to 250 deg. Fahr., and blow air towards the centre of the building, the air being deflected down in a direction roughly parallel with the stepping.

Opposite each unit heater is a louvred opening in the external wall, which is kept closed while the building is being warmed up previous to a performance, the air at that time being recirculated and the losses in the building being limited to the direct radiation losses. When the building is filled the louvre is opened so that fresh air is admitted and passes through the unit heaters, and at the same time eight extract fans 6 ft. diameter in the two spandril ends of the main roof extract vitiated air and permit a complete circulation. In addition to this system there is separate mechanical ventilation of the under seating spaces, such as bars, lavatories, restaurant, etc., and radiators are provided in the entrance foyers and in the various rooms and corridors.

The boilers consist of two "Economic" double return tube type, supplied by Messrs. Hartley and Sugden, of approximately 4,000,000 B.T.U. capacity each. They are at present coke-fired with an induced draught fan, and the flue consists of asbestos cement outside the building. The refrigerating machinery was supplied by Messrs. York Shipley, under the personal supervision of Mr. Farish, and consists of two 90-h.p. ammonia compressors. A condenser of the direct evaporative type is provided on the other side of the circulating road in an elevated position over a reinforced concrete reservoir. An automatic regulating device is being installed whereby a thermostat in the ice will control the output of the compressors so as to save electricity and manual supervision as far as possible.

One of the two compressors is entirely adequate to keep the ice at the desired temperature with a considerable margin in hand, except in periods of very heavy skating, or when the rink is at an unusually high temperature.

The electrical installation was supplied by Messrs. Drake and Gorham, under the supervision of Major Smith and Mr. Leach. The intake cables come to a transformer house beyond the circulating road, and cables are led from this under the road to the main switchroom and then to four separate switchrooms under the stepping.

The rink lighting consists of 12 groups of four lamps, each over the rink, each group having three lamps of 1,500 watts and a central lamp of 300 watts. There are other lights supplementary to these at the two ends, so as to equalise the intensity of illumination and reduce shadows. Over the stepping are 22 lighting fittings approximately 4 ft. square, each containing 500-watt lamps, the fittings containing amber-coloured glass.

There are, of course, innumerable "way out" and other notice lights, which are so arranged as to light the corridors and staircases above which they occur. The lighting is divided up into three circuits, the decorative, primary maintained, and secondary circuits. The secondary lighting is provided by a motor generator and a battery which runs at 240 volts, and so arranged that the motor generator is always in use when the building is being used. The battery is rated for a discharge of 60 amps. for three hours.

The electrical installation also includes external "Neon" signs, red flood-lighting against the red brick walls from the front edge of the concrete canopy.

Messrs. Merryweather installed a complete system of fire mains and fittings.

The building is equipped with a public address system, supplied by Messrs. Pamphonic Reproductions, Ltd., whereby speech or music can be heard easily by all the 11,000 people in the arena.

The building was erected in remarkably short time, having regard to the difficulties of the foundations. The contract was placed early in February, 1936, and the building was formally opened on October 10 of the same year—i.e., a contract period of eight months. In spite of innumerable difficulties at all stages of the work, no extension time from the original contract time was asked for or given. This is indicative of the excellent organising ability of the general contractors, Messrs. Richard Costain, Ltd., and their general foreman, Mr. Bloor.

The designer and consulting engineer was Dr. Oscar Faber, O.B.E., D.C.L., D.Sc., M.Inst.C.E., Mr. C. R. Glover, B.Sc., A.M.Inst.C.E., being responsible for all the structural work and organisation, and Mr. J. R. Kell, M.I.H.V.E., for all the mechanical and electrical services as regards design and organisation.

New Odeon Cinemas

We illustrate this week perspective exterior views of four new Odeon cinemas. That in Leicester-square (see page 785) will occupy the site of the Alhambra, and the associated architects are Mr. Harry W. Weedon, A.R.I.B.A., and Mr. Andrew Mather, F.R.I.B.A.

The theatre at Morecambe is to be erected on an important site at the junction of Euston-road and Thornton-road. The plans embody the latest principles of cinema construction, large foyers being provided for both stalls and balcony. Five shops are included in the scheme, also a car park. Seating accommodation for 1,550 is provided. The elevations have been designed in a modern manner, and will be treated with grey-brown handmade bricks, 2 in. thick with wide joints, and mottled biscuit-coloured faience with black faience base. A prominent feature is the brick tower adjoining Euston-road, which will be illuminated at night by means of coloured "neon" tubes. The estimated total cost is £50,000. The architect is Mr. Harry W. Weedon, A.R.I.B.A.

Work is well forward on the erection of the new Odeon Theatre at Burnley, on the site of the old mill in Gunsmith-lane. The entrance will be marked externally by a brick and faience tower of modern character, and designed especially to present striking illumination at night. The general elevations are in corn and black faience and dull gold and black hand-made facings. The theatre is planned with spacious lounge foyers to stalls and balcony. Ample cloakroom accommodation for both sexes and a ladies' lounge have been incorporated. Seating accommodation for 1,248 is provided. The estimated total cost is £60,000. The architect is Mr. Harry W. Weedon, A.R.I.B.A., of Birmingham, and the contractors are Messrs. P. Hamer, Ltd., of Swinton, Manchester.

Building operations have now commenced in connection with the theatre at Finchley-road, Swiss Cottage. The plans embody the latest principles of cinema construction, large foyers being provided for both stalls and balcony. The seating accommodation is for 2,120. The elevations will be treated with 2 in. grey-brown facing bricks in two contrasting tones, with wide joints. The architect is Mr. Harry W. Weedon, A.R.I.B.A., of Birmingham, under whose supervision between 40 and 50 cinemas are being erected in various parts of the country at the present time for the Odeon circuit.

Mr. Oscar Deutsch, governing director of Odeon Theatres, Ltd., of Cornhill House, Bennett's Hill, Birmingham (with whom is associated Mr. W. G. Elcock and Mr. F. Stanley Bates) is the chairman of the company responsible for the three foregoing schemes and who recently concluded the deal for the purchase of the Alhambra Theatre in Leicester-square. Messrs. Odeon Theatres, Ltd., control a circuit of over 120 theatres, and it is anticipated that this number will be increased to over 200 within the next six months.

SOCIETIES & INSTITUTIONS

R.I.B.A.

Elections.

At a council meeting of the R.I.B.A. held on Monday, October 19, the following members were elected :—

As Hon. Corresponding Member.

Alexander Einhorn (Kharkov, U.S.S.R.)

As Fellows (7).

Thomas MacKelvie Alexander, F.S.I. (Liverpool).
Frederick William Halfhide (London).
John Nelson Meredith (Norwich).
Major Charles Douglas St. Leger, M.C. (London).
Frank Scarlett, B.A.Lond. (London).
Hugh Henry Scott-Willey (London).
Arthur Thomas Nicholson (Preston).

Associates (21).

S. F. Barrell (Bartlett School) (Orpington, Kent).
T. A. L. Belton (University of Sheffield) (Nottingham).
H. N. Carr (Mosman, N.S.W., Australia).
G. W. Flower (A.A.) (London).
G. G. Haythornthwaite, Dip. Arch. (Manc.) (Victoria University), Manchester) (Sheffield).
F. N. Heath (Melbourne).
K. M. Hinchcliffe (Miss) (Liverpool School) (Oxton, Birkenhead).
B. T. Howells, B.Arch. Hons. L'pool (Liverpool School) (Liverpool).
R. A. Kirby (A.A.) (London).
L. C. Lambert (Durban, South Africa).
R. D. Lawson (Victoria University, Manchester) (Altrincham).
D. M. Lines-Roberts (Miss) (A.A.) (Bickley, Kent).
A. H. Murray (Johannesburg).
M. M. F. Poole (Durban, South Africa).
A. E. Rogers, B.A.(Arch.) (Bartlett School) (Haslemere).
R. S. Shapley (Leeds School) (Leeds).
E. A. Smalley (Accrington).
G. L. Taylor (Leeds School) (London).
H. C. Weegmann (Bramhope, nr. Leeds).
F. Wilkinson (Leeds School) (Barnsley).
A. L. Williams, B.Arch. (Liverpool School) (Penygroes, Caernarvonshire).

As Licentiates (6).

F. L. Buckley (Leigh-on-Sea, Essex).
W. R. Cross (Hounslow, Middlesex).
G. Harling (Burnley).
H. A. Manser (Eastbourne).
R. F. Mountford Mellor (Maidstone, Kent).
D. Nisbett, D.S.O., M.C. (Liverpool).

THE INSTITUTE OF FUEL.

Sir Philip Dawson, M.P., delivered his presidential address to this Institute on October 15. Sir Philip drew attention to the fact that, as by far the greater part of the some 4,000,000 tons of motor spirit and fuel oil used in this country had to be imported, it not only meant that a foreign product was replacing home-produced coal, but also that in the event of war we might find it difficult to maintain supplies of oil which were essential to our existence. Germany, on the other hand, was far more alive to the situation, and was taking steps to meet it. It was estimated, for instance, that in the present year Germany would produce at home 1,235,000 of her total consumption of 2,100,000 tons of light motor fuel. Germany had also perfected a process whereby 25 lb. of sawmill refuse could be converted into a gas equal in power value to one gallon of petrol. The Diesel engine, moreover, had been developed more fully in Germany, but this was largely due to the fact that there was no tax, as in this country, of 8d. a gallon on oil.

The President also discussed the question of the influence of the internal combustion engine on the transport industry in this country. The most marked effect was, of course, the resurrection of road transport after nearly a century of domination by the railways. Last year, no fewer than 1,272,000 persons were engaged in road transport, whereas only 675,000 were employed in the railway industry. Between 1921 and 1931, the number of employees in the road industry had risen by 28 per cent., while the railway figures had shown a decline of 14 per cent. Sir Philip pointed out, however, that of the 11,379,500,000 passenger journeys made during the year, 87 per cent. were made by road. The average fare received by the railways, however, was 8.47d., as compared with only 2.03d. received from each passenger by the road transport operator.

Examining the economics of railway electrification, Sir Philip pointed to the fact that main-line electrification resulted in a considerable reduction in the demand for coal. The Paris-Orleans Railway of France, for instance, had stated that 1 lb. of coal consumed in a generating station was equivalent to rather more than 4 lb. of the more expensive coal consumed by a steam locomotive. As regards the electrification of the British railways, the financial success of the Southern Railway conversions should have been a brilliant example to the L.N.E.R., the electrification of whose line to Southend would enable a better exploitation of the gold mine it provided.

Following upon the presidential address, a paper, prepared by Professor Dr. Franz Fischer, of the Kaiser Wilhelm Institute, Mülheimruhr, was read on "The Conversion of Coal into Liquid Motor Fuels and other Products by way of Carbon Monoxide." This was the Melchett lecture.

THE INSTITUTION OF CIVIL ENGINEERS.

Sessional Meetings.

The opening meeting of the Session of this Institution takes place on November 3, when Sir Alexander Gibb, G.B.E., C.B., F.R.S., delivers his presidential address. The important part that engineering plays in connection with road design and safety is shown by the fact that three meetings are allotted for this subject. The first is a special joint meeting on October 28 with the British Section of the Société des Ingénieurs Civils de France, when Monsieur J. Greber presents a paper on "A Study of the System of Underground Road-Crossings in Paris." Major Cook, of the Ministry of Transport, deals with road design and road safety in a paper on November 10; whilst at an informal meeting the subject of "Methods of Providing Permanent Non-Slip Surfaces for Roads" is discussed.

The experience gained in Holland, with its many canals, is drawn upon in the paper on "Ship Canals Utilised for Drainage," by Dr. Wentholt; the construction of the Lower Zambezi Bridge in Portuguese East Africa which linked up the existing railway system from the Port of Beira to Blantyre in the British Protectorate, Nyasaland, is to be described in papers by Messrs. Handman and Howorth, who were the engineers on the work. Experiments carried out in connection with pre-stressing bridge girders in India will be described by Mr. Nichols, who will also give a short account of the building of the Silver Jubilee Bridge at Broach. The results of reclamation schemes in Greece are to be dealt with in a paper on "The Salonika Plain Reclamation Scheme," by Mr. Huntsman, and on "Lake Copais, Boetia, Greece: its Drainage and Development," by Mr. Dean. The programme is completed by a paper by Mr. Raymond Carpmael, Chief Engineer of the Great Western Railway, on "The Maintenance of Waterways to Harbours and Docks."

CENTRAL DEPOT FOR THE HIGHWAYS DEPARTMENT, WESTMINSTER

By LIONEL SMITH, A.R.I.B.A.

THE purpose of this building may be broadly divided under five heads—namely (1) The centralised disposal of all refuse collected throughout the City of Westminster; (2) the garaging of all the vehicles of the Highways Department; (3) the repair and servicing of vehicles, both those of the Highways and of other departments of the City Council; (4) central stores for the Highways Department; (5) the necessary offices, locker rooms, lavatories, stock rooms, etc.

The refuse to be collected is from many sources; domestic property, offices, including such large blocks as Bush House, producing mainly waste paper, and hotels of every class and size, shops of every description, and Covent Garden Market, as well as street sweepings, etc. This refuse, in a complex area such as the City of Westminster, is of a very "mixed" nature when compared with waste matter produced by an industrial town, usually entirely uniform from district to district and from day to day. Such variety of refuse precludes the possibility of sorting into a number of saleable or usable types, and if incinerated it would produce an ash of unpredeterminable nature. In industrial districts refuse often has commercial value, especially when it produces a uniform and inert base suitable for the manufacture of such substances as face powder or tooth paste. It will be appreciated also that as Westminster contains such a large amount of residential property, destruction by burning would be extremely undesirable owing to smoke and odours. The method employed, therefore, for the removal of refuse from the City of Westminster is that of loading it into barges which travel down the Thames and unload for land reclamation.

The building has to house facilities for such services as street sweeping, cleaning of all road drains and sewers, and the salting and sanding of the roads on account of snow or frost, and gritting the roads on the occasion of processions, etc., which pass through the City of Westminster.

The question of garaging calls for no especial comment, except that the average vehicle is 24 ft. 6 in. in length, and a clear minimum headroom of 12 ft. 6 in. is required, together with floor strength to carry 14-ton lorries.

The workshop requirements are those normally necessary for internal combustion vehicles, with the addition of paint shop and wheelwrights' and carpenters' shops. The large vehicle size again here plays an important part.

The stores have to accommodate a variety of goods of every conceivable size and shape. These include men's uniforms, which are issued twice a year, mechanical spare parts, motor tyres, paint, nails and screws, brooms and shovels, iron and timber, sand bins, and many other items.

The office accommodation is for the purpose of supervision and the keeping of records, while locker rooms, clothes drying rooms and mess-rooms are essential amenities for the workmen.

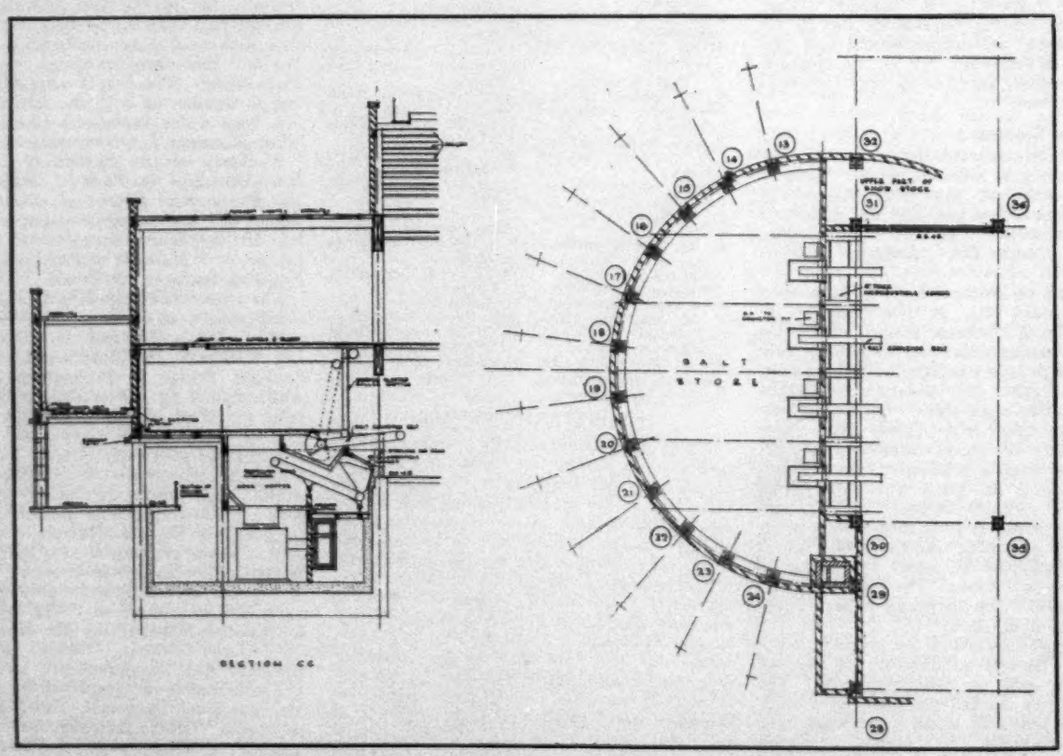
The site is situated in Gatliff-road, a turning off Ebury Bridge-road. It is roughtly "L"-shaped, and includes a dock with access to the Thames adjacent to Chelsea Bridge. Gatliff-road runs along the whole of its west side, while it is bounded on the east by the Southern Railway main line from Victoria. There is housing on the opposite side of Gatliff-road, and to the north of the site, thus making the suppression of noise and dust of great importance.

The planning of the building has been primarily laid out to suit the entry, exit and operation of both the collection lorries and large barges. These barges, from 80 to 90 ft. in length, have of necessity to operate in the dock, and there were existing two batteries of moving belt conveyors for transferring refuse from lorry to barge, thus determining the position in which barges have to be loaded.

For the purpose of this description it will be convenient for the present to ignore barges, stores, men's rooms and offices, and to follow a vehicle through the building. Laden vehicles approach by way of Gatliff-road, and enter the building at the angle of the "L," passing immediately on to two weighbridges placed one on either side of the weighbridge office. Having been weighed, they pass to the main manœuvring space, which occupies the majority of the ground floor, and back up to the hoppers of the moving belt conveyors by means of which their load is transferred to a barge. On drawing away empty from the conveyors they proceed to the west side of the refuse disposal space, where washing and disinfecting take place. They are now ready to ascend to the first-floor garage by way of the single-road ramp at the extreme south of the building; or, alternatively, to return to duty on the street by way of the exit towards the southern end of Gatliff-road.

On arrival on the first floor, vehicles proceed to their appropriate parking place, either at the south or north-west ends of the building, where there is accommodation for 75 lorries. Here they are filled with oil, greased, and receive minor adjustments. Should further attention be required, it is given in the semicircular servicing bay at the south-end of this floor. Upon vehicles returning to duty in the morning they descend by means of the double road ramp (placed at the external angle of the "L" which spans some 80 ft. across the dock) to the main entrance and exit, where they are filled with petrol and checked out to duty on passing the administrative offices. It will be noted that a vehicle completes a full cycle without returning into the street, and that the length of the road along which it has to pass has been reduced to the minimum

Two of the grouped entrances give access to the double ramp; these are for vehicles without refuse to dispose of but requiring attention in the workshops. The latter are placed centrally in the length of the first floor, convenient of access from all parts of



SECTION THROUGH BOILER HOUSE. MEZZANINE FLOOR.

it, and adjacent to the top of the double ramp.

Off the refuse disposal space are store rooms, etc., for use in connection with this portion of the building, and at its south end at mezzanine level is a large salt store. The salt is for the purpose of laying on the roads in the event of snow, and it is imperative that this be done as speedily as possible. Provision has been made for four lorries to back up to this store, in which position a moving belt conveyor projects into the back of each. The salt is then shovelled from the store into the conveyor hopper, which transfers it to the waiting lorry. In a basement below the salt store is placed the boiler-house, whose gravity-fed coke boilers are fuelled from within the building. The employment of a conveyor belt for filling the coke hoppers is necessitated by the Petroleum Consolidation Act.

The offices and men's rooms are placed in the angle of the building, thus affording for the offices ideal supervision of the entrances, the refuse disposal space and the stores. The men's locker rooms, lavatories and men's rooms are also in this central position, being convenient of access from all parts of the building and close to the offices, so making easy the supervision of men on arrival at and departure from work. The high first floor necessary on account of the clearance for vehicles below the deep beams supporting it has made possible the planning of this office and locker room block on a ground floor and mezzanine, achieving by this means considerable saving in space. This mezzanine has been repeated in the stores wing at the north-west extremity of the building, where the two floors with their necessary offices are connected vertically with a one-ton capacity goods lift.

The process of transferring refuse from lorry to barge necessarily creates a considerable quantity of dust, which must be prevented from spreading and causing a nuisance to surrounding property, and also from soiling the inside of the building. This problem has been met by providing two barge berths, one to each battery of conveyors. These are enclosed on the east side with a timber piled jetty wall, and on the west by the main building itself, the whole being covered by a structure cantilevered some 40 ft. over the dock. Each end of these compartments is closed with a 28 ft. wide dead-drop timber portcullis door, which allows the barges to enter empty and leave when filled. The barges are drawn through the barge berths by a capstan at the north end of the dock beyond the double ramp. Immediately to the north end of the barge berths a portion of the dock is covered with a concrete canopy, beneath which laden barges are trimmed, tarpaulins being tied down prior to their leaving the dock for the open river. There are two main sources of dust caused when loading the barges. The first occurs when the rubbish falls from the back of the lorry into the hopper of the moving belt conveyor; the second when it falls from the mouth of the conveyor into the hold of the barge. Since men have to work on the barge while it is being filled, it is necessary to remove the dust from both these sources. The cantilevered structure over the barge berths also houses two batteries of dust extraction plant. Each battery is divided into two, one section extracting from the barge berth itself, the other from the conveyor hoppers. The dust-laden air is drawn from these points through large metal trunks by electric fans totalling 110 h.p. per battery. It is then blown through tubular fabric filter tubes, which allow the air to pass through them but retain the dust, which is afterwards returned to the barge. It is estimated that 22 tons of dust a week will be extracted.

The site being "L"-shaped, the offices for administration and supervision, the men's changing rooms, etc., and the main vertical circulations by staircase and road ramp have been concentrated in the angle, as being easy of access to both wings of the building. The placing of the supervisor's office between the two main entrances gives a view of all work and traffic on the ground floor. A concentration has been made of all offices, men's lavatories and locker rooms in the wedge where the two wings change direction. The placing of the refuse disposal space is inevitable, and it has been kept as free as possible from obstruction to facilitate movement of vehicles and ease of adaptation in the event of possible future developments in use of this part of the building. The single road ramp at the far end of the long wing is for the convenience of both ground and first floors, the semicircle inside it being used for the boiler-house and salt store, in which position they are clear of the main circulations. The north-west wing is away from the dock, and so of no value for the business of refuse disposal. Here the stores are situated in a position suitable for the delivery of goods to them without the necessity of crossing any other part of the building. The large sweep taken across the dock by the double ramp has the value of delivering vehicles in the most convenient positions both on ground and first floors, while by passing out of the building avoids the creation of awkwardly shaped spaces and enables a great saving of space on the useful part of the site.

A glance at the first-floor plan shows the reason for so placing the two ramps, as also the main stair. The secondary staircase, as well as providing a means of escape, gives access to the stores for spare parts, etc., required in the workshops. The treatment of the first floor as a large uninterrupted space (unfortunately cut in two by a fire wall) and the enclosure of the workshops by light partitions are points worthy of note as giving the utmost flexibility possible in the event of future sub-division being required. The placing of the workshops gives them access from all parts of the first floor and from both ramps, and their disposition on either side of a central roadway obviates the retracing of tracks and simplifies control. The wide single span of the roof, supported on trusses of unusually clean and simple lines, should be most impressive and give great dignity to the interior design of the first floor. Great boldness has been shown in the method for enclosing the barges by cantilevering from the main building, and this, together with the scale of these compartments, cannot fail to "tell" very strongly

Study of the plans will reveal that the disposition of the main units and circulations has been handled in the simplest and most obvious way, achieved by considerable analytical and constructive thought.

The foundations are now in progress and practically completed. They are of two types —i.e., piled foundations and mass concrete foundations. The majority are piled, with groups of three, four or five piles under each stanchion. The pile caps are tied together with beams in the usual manner. The piles are of the Franki type, the shafts varying in length from 15 ft. to somewhat over 20 ft., and they have been tested to bear 120 tons each.

The dock has been formed out of what was the truncated end of the Grosvenor Canal. It was known that some 18 ft. behind the present dock wall was the original canal wall, and the sinking of bore-holes brought to light the fact that the space between these two walls was filled with very large lumps of concrete filling. The driving of piles through this extremely hard filling would have been very difficult and there was also the dangerous possibility of overturning the dock wall through so doing. It was therefore decided to construct the foundations along the east of the building, immediately behind the dock wall of mass concrete. These carry the heaviest loads in the whole job; they all descend 27 ft. below the top of the dock wall, where good gravel is found.

The cantilevered central portion of the building produces the greatest point loads on the foundations; they are brought down on six stanchions, each with a reaction of approximately 1,000 tons. The foundations carrying these loads are immediately behind the dock wall, each one being 10 ft. wide and tailing back to prevent tripping for 78 ft. Each one of these foundations contains 45 tons of steel reinforcing rods and 1,200 tons of concrete. They are in pairs, being tied together in the north and south direction by large reinforced concrete beams. The retaining wall of the boiler-house has had to be designed to resist full water pressure to within 7 ft. of the top of the dock wall.

The timber-piled jetty screen is constructed of sixty 14 in. by 14 in. Columbian pine piles, 5 ft. apart, creosoted to Admiralty specification. Dolphins have been formed at each extremity by interlacing vertical and raking piles. The whole is tied together by means of 12 in. by 6 in. whalings and braces, and the outside covered with 12 in. by 3 in. close boarding to render the whole dust-tight. Protection of this wall from damage by barges, weighing from 250 to 300 tons, is provided on the outside by 12 in. by 6 in. oak rubbing pieces at 10 ft. centres, and on the inside by 12 in. by 4 in. Jarrah. The piles are driven 12 ft. into the bed of the dock, a two-ton hammer with a 4-ft. drop having been used.

The superstructure is to be of constructed steel frame with brick walls and reinforced concrete floors, the roof being of light sheeting supported on welded steel trusses with purlins at 6 ft. 3 in. centres and 34 ft. 6 in. span. The general structural principle is that of heavy main beams at 34 ft. 6 in. centres running across the width of the building and being supported by stanchions at varying intervals according to the necessities of structure or traffic movements. Between these main beams span uniform secondary beams at 11 ft. 9 in. centres, which in turn support the reinforced concrete first floor. This floor has been designed for the actual loading transmitted through the wheels of 14 ton vehicles packed all over the floor, and the resulting concrete slab is only 7 in. thick. The canopy over the barge berths, the portcullis gates and their machinery, and the housing for the extraction trunking, are of comparatively light uncased steelwork covered with roof sheeting. The whole of this overhanging portion of the building is carried on three pairs of 40 ft. cantilevers, each pair having their extreme ends tied together with a beam. They are tailed back 67 ft. 6 in., one cantilever on account of lorry circulations having to tail back 92 ft., that is, the whole width of the building. Between the pairs of cantilevers are the two batteries of conveyors, across which the wall beam (in one case a plate girder some 6 ft. deep) has to span 69 ft. Standing on the cantilevers and spanning between each pair is a 9 ft. 6 in. deep lattice girder, to the bottom flange of which are hung the cross joists carrying the floor of the extraction duct chamber. The joists of this, in turn, cantilever forward and downwards until they meet the timber jetty wall, thus completely enclosing the barge berths. The top flange of the lattice girder supports the ends of the trusses carrying the roof over the dust extraction trunks. Each timber portcullis is enclosed and supported by a tower built up from a pair of cantilevers.

The first floor may be considered as an elevated reinforced concrete raft, which has to be enclosed with a wall and roofed. The enclosing wall is of 9 in. brick panels between structural steel stanchions and beams; the wall stanchions stand on the first-floor wall beams, their spacing having been determined by the regulations of the Code of Practice. The trusses are at 34 ft. 6 in. centres and cover the whole width of the building in one clear span. These are in actuality two-hinged portal trusses, a development of the true arch, supported at the first-floor level on pin and socket joints, their vertical legs being clear of the enclosing walls and the whole free to move independently. From centre to centre of the legs of each portal is 92 ft. 8 in., the rise to the crown being 31 ft. These roof trusses are of simple joist section, the web varying in depth from 18 in. to 3 ft., stiffened at intervals, and the flanges are simple plates 12 in. wide. They are to be electro-welded throughout, and each portal will have but two site welds. These portals should be of

very general interest, for, apart from being of a form as yet little known, and used in England, they will be the first trusses of this type in the country constructed entirely of welded work.

The ramp roads are supported by a simple arrangement of stanchions and beams fairly closely spaced; the foundations for these, where the double ramp spans the nose of the dock, consist of two heavy plate girders, one of 90 ft. and the other of 80 ft. span. The gradient is 1 in 10, the roads being bordered with a granite kerb and paved with studded cast iron paving slabs. Their walls are 13½ in. brick without openings, so isolating the noise of vehicles travelling up them in low gear. The roofs are of concrete and are stepped to provide clearstory lighting shining directly on to the roads below.

The stores mezzanine is formed by merely inserting an additional floor. The administrative office block is in the nature of a second and smaller building built within the first. It has a steel frame from ground floor to mezzanine, infilled with brick panels and carrying the mezzanine floor slab, which in its turn carries the enclosing walls and partitions of the mezzanine.

The elevations are brick, and are simple and dignified, an attempt having been made to maintain a unity of design on all four sides, rather than applying "facades" on the street fronts. The elevation to Gatliff-road is dominated by a series of large windows, divided by brightly coloured piers of careful proportion and arranged to provide light to a large space. The entrances on this front have been dropped below the window heads to a height dictated by the clearance of a vehicle.

They will be decorated with sculptured coats of arms of the city, which should read strongly by contrast with the large expanses of blank wall. The concentration of sculpture over the entrances and the colour provided between the windows will give this elevation both richness and unusual character. The two ramps frankly reveal the vertical circulation for the vehicular traffic, while the bold treatment of the first-floor garage by means of an unbroken wall adds dignity. The dominant of the dockside elevation is the frank expression of massive overhanging barge canopys, which rightly rely on the dramatic appeal of their structural form to satisfy æsthetics. Here the strength of the main cantilevers is evident from the naked concrete with which they are encased. The large spaces, accommodating barges and dust extraction plant, are enclosed with the light corrugated roof sheeting in contrasting colours. The simplicity of the remainder of the building on this elevation emphasises the bold structural form and takes full advantage of the unusually large scale of the dominating features.

Messrs. W. and C. French are the foundation contractors, and Messrs. W. and T. Avery supplied the weighbridge. Mr. G. Grey Wornum, F.R.I.B.A., is the architect.

Cardinal Wolsey's Chapel.

The Office of Works, in the course of sinking a shaft in Horse Guards-avenue to discover the strata upon which the new Government buildings are to be erected in Whitehall, came upon some old steps, which, according to the *Sheffield Telegraph*, are believed to lead from the Chapel of the Palace of Whitehall to the crypt. In Cardinal Wolsey's time the chapel stood on the small piece of lawn outside the entrance to No. 1, Horse Guards-avenue. The chapel has, of course, long since disappeared, but the crypt has been carefully preserved, and at present serves the purpose of a refreshment club for the Ministry of Transport.

Preservation of the South Downs.

A private company, South Downs Preservation Trust, has been registered "to promote the preservation of the South Downs in co-operation with the Society of Sussex Downsmen, etc." The council are given as J. Bately, C. E. Cook, Lilian Bately, H. L. B. Tarrant, C. Beckwith, E. Turner and A. O. Beckett, "Audenlea," Hartfield-road, Eastbourne

HISTORICAL MONUMENTS IN WESTMORLAND*

The volumes of the Royal Commission's Inventories of the ancient and historical monuments of England already published have been so admirably produced and have contained so much interesting artistic and literary matter that it is a pleasure to call attention to this volume on Westmorland. It is the seventeenth report on the work of the Commission since its appointment, the Inventories already published being those of Hertfordshire, Buckinghamshire, Essex, London, Huntingdonshire, and Herefordshire—the southern half of the country—and the Commission has now published this detailed report on the northern county of Westmorland—an area containing 1,820 monuments in 113 parishes. The volume contains a series of general articles on the county as a whole—a lengthy illustrated article by Dr. R. E. M. Wheeler, Keeper of the London Museum, on "Prehistoric and Roman Westmorland"; "Pre-Conquest Westmorland," by Professor F. M. Stenton, F.B.A.; and an article on "The Lady Anne Clifford," by Mr. A. W. Clapham, secretary. The sectional preface, under subject headings, calls attention to any particularly interesting examples mentioned in the Inventory; and an illustrated Inventory, with a concise account of the monuments visited; a list of monuments that the Commissioners have selected as especially worthy of preservation; an armorial of heraldry before 1550; a glossary of the architectural, heraldic and archæological terms which occur in the volume; a map showing the topographical distribution of the scheduled monuments, and an index are also included in the volume. The monuments are found under the heads of the parishes arranged alphabetically, with an introductory paragraph calling attention to the more noticeable among them in each parish.

The previous Surveys published by the Commission have been notable for the number, interest and quality of reproduction of the illustrations, and this volume on Westmorland is equal to any of the previous publications. The illustrations are from photographs taken expressly for the Commission and reproduced by H.M. Stationery Office, and we heartily agree with Lord Crawford in his short preface as Chairman of the Royal Commission that these reproductions deserve special recognition. The many pages of interesting and artistic monuments of different types show photographic reproduction at its best and do much to increase the interest of the description of the monuments themselves. Whole pages are devoted to many of the subjects illustrated, while the first sixty pages of the actual Inventory include some hundreds of illustrations alone, ranging from earthworks, megaliths, Roman altars and stones, and later stones to ecclesiastical architectural details, etc.

The numbers and quality of the illustrations and their general interest is only part of this excellent Inventory, important though that part is, for the descriptive matter is both clear and concise, and varies in length according to the importance of the subject. It is mentioned in the preface that the Commission have followed their "unbroken practice of including no monument that has not actually been inspected, and the account of every monument of importance has been checked *in situ* by a member of our own investigating staff." In the county are monuments of considerable importance and interest, prehistoric, mediæval and later structures, and these and other monuments of the county are adequately described and noticed.

The work which the Royal Commission are responsible for in this and the previous Surveys is invaluable and we hope they will be able to carry on and complete their task.

* "Westmorland. A Survey and Inventory by the Royal Commission on Historical Monuments (England)" His Majesty's Stationery Office. Price 30s. net.

LAW REPORT

COURT OF APPEAL.

Before LORDS JUSTICES SLESSER and SCOTT and MR. JUSTICE EVE.

CASE UNDER THE BUILDING REGULATIONS, 1926.

Kearns v. Gee, Walker and Slater, Ltd.

In this case the plaintiff, Mr. John Kearns, a bricklayer, employed by the defendants, Messrs. Gee, Walker and Slater, Ltd. (builders and contractors, of Fitzmaurice-place, London, W.1), on the rebuilding of the premises of John Barnes and Co., Ltd., in Finchley-road, appealed from a judgment of Judge Dumas, at the Westminster County Court, the case raising a question of construction under the Building Regulations of 1926, affecting all new buildings under construction or old buildings to which additions were being made

It appeared that Mr. Kearns, at the material time, was working on a scaffold which had been in position for a day and a half, fitting up steel construction with brickwork, when he was struck on the head by bricks which fell from a wheelbarrow used by another workman on a higher floor. The bricks were being hoisted in skips by an electric crane, and then loaded into barrows. Mr. Kearns was away from work for upwards of three weeks, and brought the action against his employers to recover £50 damages.

The defence set up by the employers was that of "common employment," to which Mr. Kearns replied that the accident was caused by the negligent breach of paragraph 31 of the Building Regulations, 1926, made under the Factory and Workshop Act, 1901.

The paragraph in question, which dealt with work on buildings under construction, is as follows :—

"Any part of the premises in which any person is habitually employed shall be covered in such a manner as to protect any person who is working in that part from being struck by any falling material or article."

In the County Court, Mr. Kearns gave evidence that at the time of the accident he was on the outside of the structure, about four stories up, and that he had not before been engaged on that particular wall. The next floor had been concreted and a quantity of bricks were stacked upon it. There were no planks on the scaffolding above him.

Evidence was given that Mr. Kearns was struck by several bricks from above, and that there was no protection at the place where he was working.

The County Court Judge gave judgment for the employers on the ground that the point where Mr. Kearns was working was not a part where someone was habitually employed. He (the Judge) directed that if the Court of Appeal reversed his judgment and held that Mr. Kearns was entitled to recover he assessed the damages at £25.

Lord Justice Slesser, in giving judgment, said that the opening words of the Regulation showed that they were applicable to all premises on which machinery was being worked by steam, water, or other mechanical power. It had been argued for the respondents that the present case did not come within the Regulations, because the crane used was being worked by electricity and that that was not "other mechanical power," and that that expression must be interpreted according to the *ejusdem generis* rule. But, said the Lord Justice, a machine worked by electrical power was just as much worked by mechanical power as if by steam or water. On the evidence it was impossible to say that the persons who worked there were not habitually employed there, or that the place where the accident happened was not a place where any person was habitually employed. He thought that the appeal should be allowed and judgment entered for Mr. Kearns for £25, with costs, on Scale C.

The other members of the Court concurred.

TOWN AND COUNTRY PLANNING SCHEMES

DETAILS FOR SEPTEMBER.

The following details of Town and Country Planning in England and Wales for the month ended September 30 last have been issued by the Ministry of Health :—

Varying Schemes operative (Stage S.O.).

DURHAM.

North Tees (Amendment) Joint Committee (North Tees Joint T.P. Scheme, 1933, Varying Scheme No. 1, 1936).
(Stockton-on-Tees B., Billingham U.D.)

GLOUCESTER.

Bristol T.C. (Bristol Planning (No. 5) Scheme—Varying Scheme).

Varying Schemes approved, but not yet laid before Parliament (Stage S.A.).

MIDDLESEX.

Ruislip-Northwood U.D.C. (Ruislip-Northwood T.P. Scheme, 1914, Varying Scheme No. 5).
Ruislip-Northwood U.D.C. (Ruislip-Northwood T.P. Scheme, 1914, Varying Scheme No. 6).

SURREY.

Croydon T.C. (Croydon (East) (No. 1 Varying) Planning Scheme).

Schemes submitted (Stage S.S.).

DORSET.

Sherborne U.D.C. (Sherborne T.P. Scheme).

DURHAM.

North-East Durham Joint Committee (North-East Durham Joint T.P. Scheme). (Information as to the areas included is not yet available.)
Sunderland T.C. (Sunderland T.P. Scheme No. 2).

SURREY.

Caterham and Warlingham U.D.C. (Chaldon Planning Scheme).
Caterham and Warlingham U.D.C. (Woldingham Planning Scheme).
Dorking U.D.C. (Dorking Planning Scheme).
Richmond T.C. (Ham T.P. Scheme No. 1).

Draft Schemes adopted (Stage D.S.).

ESSEX.

North-East Essex Joint Committee (Frinton and Walton area) (Frinton and Walton U.D.). (This Draft Scheme referred to in Supplement No. 3 at Stage D.S. relates to all areas for Frinton and Walton U.D.C.).

HERTFORD.

Ware U.D.C. (The Draft Scheme relates to both areas.)
Watford R.D.C. (This Draft Scheme referred to in Supplement No. 4 at Stage D.S. relates to the areas shown as :—
Watford R.D.C. RA
" " transferred from St. Albans R.D.C.—RA).

KENT.

Maidstone R.D.C. (Information is not yet available as to the areas included in the Draft Scheme.)

SOMERSET.

Taunton T.C. (Information is not yet available as to the areas included in the Draft Scheme.)

SOUTHAMPTON.

Basingstoke and District Joint Committee. (This Draft Scheme referred to in Supplement No. 5 at Stage D.S. relates to the areas shown as :—
(a) Basingstoke T.C. (No. 1) RA
(a) Basingstoke T.C. (No. 2) RA
(a) Basingstoke R.D.C. (No. 1) RA
(a) Basingstoke R.D.C. (No. 2) RA)
Fleet U.D.C.

SURREY.

Egham U.D.C. (The Draft Scheme relates to all areas.)

MONMOUTH.

Newport T.C. (This Draft Scheme referred to in Supplement No. 5 at Stage D.S. relates to *part* of the following area :—
Newport T.C. (Main Area) RA
and to the *whole* of the following area :—
Newport T.C. (Part I) PSA)
(Note.—*Part* of the area shown as
Magor and St. Mellons R.D.C. (Newport T.C. Main Area)
and the *whole* of the area shown as
Magor and St. Mellons R.D.C. (Newport T.C. Part I)
are included in the Draft Scheme.)

Resolutions approved (Stage R.A.).

CORNWALL.

Newquay U.D.C. (No. 3A).

STAFFORD.

Stoke-on-Trent T.C. (Western Area No. 1 (Extension) Strongford Area). (This relates to entry shown in Supplement No. 5 at Stage O.R.)

SURREY.

Carshalton U.D.C. (No. 2).

WARWICK.

Nuneaton T.C. (No. 2).

YORK (WEST RIDING).

Mirfield U.D.C.

Resolutions submitted, but not yet approved (Stage R.S.).

MIDDLESEX.

Friern Barnet U.D.C. (No. 2).

NORFOLK.

South Norfolk Joint Committee (Diss U.D., Depwade, Loddon, Wayland R.Ds.).
West Norfolk Joint Committee (Downham Market, Swaffham U.Ds., Downham, Freebridge Lynn, Marshland, Swaffham R.Ds.).

Resolutions passed, but not submitted (Stage O.R.).

KENT.

Deal T.C.

SURREY.

Richmond T.C. (No. 3).

YORK (WEST RIDING).

Ilkley U.D.C. (No. 3).

County Councils.

The Authority shown below should be noted as having relinquished its planning powers to the County Council indicated :—

ESSEX.

Essex County Council.—Ongar R.D.C.

Joint Committees.

The Authority shown below should be noted as being a constituent member of the Joint Executive Committee for the area indicated :—

DURHAM.

North-East Durham Joint Committee.—Felling U.D.C. (transferred from North-East Durham Joint Committee—Helsburn U.D., South Shields R.D.) D.S.

INQUIRY BUREAU

QUESTIONS.

Extermination of Insect Pest.

SIR,—I should be glad of your readers' advice regarding the extermination of an insect of the lice or mite type, which has invaded a house, and which, in spite of fumigations of sulphur and formalin, still persists, although not so extensively as at first. The furniture and furnishings are new.

My theory is that the insects have come from the outside, where there is a large garden surrounded by trees and walls thick with ivy; but others think they may be wood mites peculiar to furniture. The insects are microscopically small, and I should liken their size unto specks of cigarette ash. SPRAY.

Cost of Service Roads.

SIR,—Can I ask a local authority to contribute part cost of a service road they are asking to be constructed under the Restriction of Ribbon Development Act to some houses I propose building on a main road? ANXIOUS.

[One needs to know the exact facts before answering this specific question, but if the highway authority is acquiring the land for the purpose of making the road referred to, then the highway authority will make up the service road, taking it into account in relation to the amount of compensation payable to the owner of the land taken. If, however, the service road is to remain a private road, but nevertheless forms part of the highway authority's scheme, then authority may, but not necessarily, if approached, contribute towards the cost of the service road.—Ed.]

Erection of a Wall Sundial.

SIR,—I am proposing to put a wall sundial on the south wall of a house at present in course of erection. I should be glad if any of your readers could put me in touch with a firm or firms who could advise me as to the setting out of the hour figures, shape and size of gnomon, etc., as adapted to the special requirements of longitude and latitude, etc. SUNDIAL.

Cost of Building a Country House.

SIR,—Could you give me any information as to the *approximate* cost of building a country house with the following accommodation?

Ground floor.—Three sitting-rooms, small lounge hall, kitchen, scullery and usual offices.

First floor.—Two double bedrooms, two single rooms, two maids' rooms, two bathrooms and w.c.s, one ditto for maids, linen-room, principal and back staircases.

The ground-floor space to be approximately 1,800 ft. sup., and the same for one floor above. Price to include hot and cold water in bedrooms, central heating, and wiring for electric light and power. Would stone be appreciably more expensive than 11 in. cavity brickwork, and would a tiled roof cost more than a slated one? I am assuming good, sound, but not extravagant, materials and workmanship. COUNTRY HOUSE.

ANSWERS.

One Pipe Drainage.

[ANSWERS TO "MODERN," OCTOBER 16.]

SIR,—The Ministry cannot overrule an existing bye-law. Under legislation coming into force, local authorities will be forced to review their bye-laws at short intervals, at each of which Ministry approval will be requisite. Then will be the occasion for revision. BYE-LAWS.

SIR,—If one-pipe drainage only is permitted under a Council's bye-laws, an appeal to the Ministry of Health would be useless. A local authority has considerable powers as to drainage, and it is compulsory to adhere to its decisions. One-pipe drainage is permitted only by the Ministry of Health where approved by the local authority. W. E. W.

SIR,—If the current by-laws of the district do not at present permit the practice, the Minister of Health has no power to authorise it. At present local authorities' by-laws are undergoing revision consequent on the provisions of the new Public Health Act, 1936. The by-laws of the district concerned should therefore be revised to permit of the one-pipe system being used and sent to the Minister of Health for confirmation. LEX.

Floor Clips.

[ANSWER TO "CONSTRUCTION," OCTOBER 16.]

SIR,—Every joist must be well nailed on both sides to the floor clips, and failure to do so will introduce movement, and therefore squeaking. This is probably the cause of the present trouble. SUPERVISION.

Wood Blocks.

[ANSWER TO "ARCHITECT," OCTOBER 9.]

SIR,—We have read with interest the letter from "Architect" in your issue of the 9th instant, in connection with the three cases he has experienced recently of oak flooring blocks swelling sufficiently to prevent doors opening.

The swelling of seasoned timber is an inevitable result of a damp atmospheric condition, and the real cure is to try to establish a stable atmospheric condition within the building in which the trouble occurs. As "Architect" suggests, the weather conditions which have prevailed during the past year have been very trying in this respect and remarkably high degrees of humidity have been recorded in all parts of the country. Although on first consideration one would expect the damper conditions during the winter months, it has been found that the greatest degree of humidity is usually registered in the summer and early autumn. This is due to the fact that the air is warmer and is capable of holding in suspension a greater amount of moisture than the cold winter atmosphere. This moisture is held in the atmosphere throughout the day when it is warm, but the sudden drop in temperature at night causes a large proportion of this moisture to be deposited on any cooler surface, such as walls, floors, etc.

There may, also, be some local condition, such as dampness rising through the foundation, which requires attention, but as a general rule swelling should be regarded as a healthy sign, as it shows that the timber is well seasoned, and is merely responding to a condition capable of making it expand. If in the presence of such a condition expansion of the timber did not take place, it would mean that the timber was green and wet, and in the later stages of the life of the building, shrinkage would be inevitable. Usually trouble from swelling comes in the initial stages only until the floors have adjusted themselves, but if there is active damp from the foundation or defective land drainage, then the swelling may go on for such a length of time as is necessary for the timber to accumulate sufficient moisture to suit the damp conditions. CONTRACTOR.

THE BUILDING TRADE

MORE ABOUT RECURRING DEFECTS—XVII

By J. R. TAYLOR.

FLOORINGS—(continued).

At one time an admixture of sawdust and Portland cement was thought to have great possibilities as a floor covering and for other purposes, but owing to the ill-effects brought about by the penetration of moisture the results have been disappointing. But substituting calcined magnesite for Portland cement has made it possible to use sawdust, and/or wood flour, with satisfactory effect. There have, however, been so very many failures, owing to the use of defective methods and materials, that great caution is necessary, and, in the writer's view, only specialists of good standing, who are prepared to take full responsibility and give substantial guarantees should be employed. It is significant that representative members of the flooring trades have more or less unitedly sought the co-operation of the Building Research Station in an effort to secure a uniform standard of good practice. As has been repeatedly pointed out in the Research Station reports, there is a danger of corrosion of reinforcement steel, pipe conduits or other metal fitments if moisture is present, and chlorides obtain access to the steel by way of cracks or construction joints, or as the result of forming holes through the flooring. As long ago as 1926 the Station announced that this trouble had to a large extent been explored, and that as a result of experimental research work a process had been evolved that enabled the Station to place at the disposal of users for a small fee a method of obtaining a non-corrosive mixture. Many failures to withstand traffic wear, and other troubles, are attributable to incorrect manipulation, which can do a vast amount of damage, even though the materials be correctly proportioned in the first instance. Only properly trained floor layers, with experience of the material to be handled, should be employed on the work, and then under close and competent supervision. It is because the writer is convinced of the necessity of this that he does not propose to set out in detail any particulars of the methods that should be followed or avoided. At present the laying of these floors on new or old bases is essentially a job for the specialist and, owing to variation in quality of the materials or other causes, not even he is invariably successful. But failures grow fewer, and this jointless floor covering offers so many advantages that if the work is entrusted to firms of good standing any small risk may be justifiably taken.

Asphalt Pavings.

For certain purposes, such as the flooring of indoor markets, auction rooms, and buildings of similar character, asphalt paving offers distinct advantages. It is more readily repaired than is granolithic. It is the natural rock asphalt that is here referred to, which is quarried and powdered, tamped with hot beaters or rammers, and rolled out with a heavy roller. The concrete base should preferably be reinforced with fabric, for the roller employed may weigh as much as ten tons; but where it is desired to retain a degree of resiliency, a lighter roller is sometimes employed, but not much lighter. Mastic asphalt, as laid in roof coverings, and tarmacadam as used on roads and paths, do not call for consideration under our heading, though the latter makes a good floor for a private garage, if oil droppings are not left to stand for too long a time. Natural asphalt is also obtainable in the form of compressed flags.

Tile Floors.

At one time, if mention were made of a tile floor, a covering of tiles composed of baked clay was almost invariably referred to; but now tiles in common use are made up of a great variety of materials. Of the commonly used clay flooring tiles, the "quarry," which, as a rule, is of a texture similar to a pressed brick, is the cheapest. It usually measures 9 in. by 9 in. and is 1 in. thick or more. In the Midlands and North this tile is largely used as a covering to kitchen, scullery and other "office" floors. Sometimes it is laid on concrete on a lime mortar bed, and is grouted in cement; but in houses of a cheap type, in districts where by-laws do not exist or are loosely administered, the concrete is omitted, a bed of furnace ashes being substituted. A tile of similar texture measuring 6 in. by 6 in. by about ¾ in. up to 1 in. is also known as a quarry. In some cases the term "quarry" is reserved for tiles showing a non-slip surface pattern in relief, but in the North this is not usual. A 6 in. by 6 in. red or black or blue tile of superlative quality is made from the Ruabon clay, and formerly the term "Adamantine" was applied exclusively to this tile. That it is now used to denote tiles from other sources should be taken into consideration when specifications are being prepared. The encaustic tiles formed of two or more clays of different colours are widely used in hallways, as also are the tessellated tiles in plain colours. The first tiles made up of concrete could hardly be said to be a success, not even those made later than 1900-1910; they varied too widely in strength, and, owing to unequal shrinkage, in size. Some makers have been very successful in their efforts to overcome these defects, and now produce a very good quality concrete floor tile. It has been pointed out by the Building Research Station that tiles may loosen as the result of cement mortar shrinkage, and this has to be taken into account. But, for one floor affected by this cause scores are rendered defective by reason of traffic being permitted before they have had a few days of seasoning. Formerly a defect in Portland cement used too soon after manufacture was that it swelled. A common test was to moisten it, and fill a glass bottle, and if it did not swell and crack the bottle it was, in respect to this, thought to be satisfactory. In those days cement was not so finely ground as at present. Now, as has been proved by the Building Research Station's successful efforts to overcome shrinkage in artificial stone, too-fine grinding is giving trouble. But through both periods, the firms with which the writer has been associated have experienced no difficulty on account of tiles working loose, and this, it is believed, is because for upwards of a week the newly-laid tiles have not had to carry traffic.

Terrazzo and Mosaic.

The laying of terrazzo and mosaic floor coverings (or surfaces) is specialists' work, though some plasterers can make quite a good job. There is not much that we need say about it here, except to issue a warning about some of the artificial "marbles" that are sometimes used. In one case of failure, where floors to the value of more than a thousand pounds were so badly affected as to need complete renewal in other material, the defect was attributed to sabotage in a foreign factory. This theory was not rebutted, but the writer did not accept it, and would have liked to hear our own Research Station on the subject. Under continuous traffic, small pattern mosaic is found to work loose in patches, and, if neglected, the damage rapidly spreads. Repairs are costly, because the new material inserted will stand proud of the general surface, must be left to become quite firm, and then be rubbed down and polished.

Cork Tiles and Cork Filler.

Cork tiles make an interesting floor that has the great virtue of being practically noiseless. The tiles have a thickness of just over half-inch, and are supplied in squares ranging from 4 in. by 4 in. to 12 in. by 12 in. They are secured with a glue said to be waterproof, and if laid by the makers they are guaranteed over a period of years. Granulated cork has been much used as a filler in jointless flooring, and has its merits; in particular, it is suitable for use in private nursing wards. It is, however, easily marked if apparatus moved over it is not on rubber-shod wheels. Cork takes a good polish, and as was remarked in relation to dance-floor coverings in a previous article, the polish should be maintained and take up the wear.

Wood Block Flooring.

I have on a previous occasion said nearly all I want to say about wood block flooring. It is, however, noted with regret that most of the flooring is now cleaned off with a machine, which makes it impossible to take account of the direction of the grain. To follow up with a sandpapering machine does not so correct the effect of cross grain planing as to make the finish equal to that formerly obtained by hand. There are those who may hold other views, but old experienced craftsmen will bear me out when I say that no machine could ever give to the surface of wood that finish which the former could impart with hand tools. For domestic buildings the writer likes solid ground floors much better than hollow floors. If the by-laws insist on the damp-proof course being placed not less than six inches above outside finished surface level, the concrete base to tile and wood block floors is necessarily kept up above water, travelling just below surface level. Damp penetration and dry rot have done infinitely more damage to property than the combined effects of fire, storm and flood; and more damp finds a way into our houses from below ground than through the roofs. A very high percentage of our fuel consumption is used to dry out more or less invisible damp that should not be allowed to enter. There is much more that could be written about the floorings so far mentioned, and quite a large number of others. This is not, however, the place for an extensive consideration of the many materials that have been pressed into service as floorings. Nor can we treat of the construction of suspended floors, starting with the difficulties of the carpenter, who repeatedly found himself without even one beam of sufficient length to take a bearing on the only available supports. Indeed, his difficulties in this respect did not end with the floors, but followed him into the construction of the roof, and gave us the hammer-beam principal, and many another solution which engineers and architects have since extended. It is such things that make of building an art and a joy, and the study of them a recreation.

(To be continued.)

MODERN BUILDING PRACTICE

Under this title Messrs. George Newnes, Ltd., are to issue periodically a series of publications* in handy form, designed to cover the entire field of building practice to-day. The work will be completed in four volumes: (1) Design and Planning; (2) Construction; (3) Materials and Operations, and (4) Equipment of Buildings. The publishers have been fortunate in securing the services of Mr. Percy Thomas, P.R.I.B.A., as general editor, and the names of Messrs. W. S. Purchon, Alfred C. Bossom, T. Corkhill, R. Cromie, H. O. Corfiato, C. W. Glover, T. E. Scott, T. P. Bennett, G. P. Manning and P. J. Luxton (among a long list of distinguished architects and constructional experts) are a guarantee of efficient and trustworthy presentation of facts and material.

The first part, now issued, should be useful to young students of architecture and building, as a wide field is covered. The publication is fully illustrated by photographs and diagrams, and if the standard of the subsequent parts does not fall below this initial issue, we imagine the series should have a well-deserved success.

* Modern Building Practice. George Newnes, Ltd., 8-11, Southampton-street, Strand, W.C.2. In about 40 weekly parts. Price 1s. per part.

POST OFFICE BUILDING WORK

Details of forthcoming Post Office building work were given in an address on "The Post Office, Then and Now," by Mr. J. H. Brebner, M.B.E. (Controller, Press, Information and Publications, General Post Office), to a meeting of the Portsmouth Brotherhood at Portsmouth on Sunday, October 18. Having referred to the history of the Post Office, the speaker said that early in 1932 a committee was appointed under the chairmanship of Lord Bridgeman to inquire and report as to whether any changes in the constitution, status or system of organisation of the Post Office would be in the public interest. They singled out as one of the main defects of the organisation that all Post Office profits were taken by the Treasury. Action had now been taken to remedy this defect. For a period of three years beginning with the year 1933-34, the actual or prospective surplus earned by the Post Office from its business with the public, in excess of a basic figure of £10,750,000 would be earmarked for Post Office purposes. The powers of the Postmaster-General to incur expenditure without reference to the Treasury had been extended, especially in connection with telephone works, buildings and in certain other directions.

For the first time in its history the Post Office was able to retain a part of its profits. This year it proposed a record capital expenditure of £13,530,000, an increase of £3,000,000 over that of last year. During the next twelve months they had a very heavy building programme in hand, and expected their sites and buildings expenditure to reach the £2,000,000 mark. This outlay was not confined to the busier places, but was spread over the whole country, and would benefit even the smallest villages and hamlets, where some hundreds of small automatic exchange buildings would be provided. Included among the major building schemes, of which they hoped to start over 100 this year, were 38 new Post Offices or combined Post Offices and Telephone Exchanges, 23 separate exchanges, and a dozen or more large garages.

In the big towns the provision of new Exchange buildings as part of the scheme for the automatic working of the telephone service throughout the country went steadily on, and now that great headway had been made with the London new automatic exchange buildings, plans had been laid to deal as rapidly as possible with the big provincial cities. At Liverpool the erection of a large central exchange building to house automatic plant, trunk and toll exchanges, and a repeater station had commenced; and a similar building would shortly be started at Glasgow. Provision of a considerable number of subsidiary exchanges in these areas would be carried out in the next few years.

In London further new automatic exchanges were being commenced in continuation of the programme for the conversion of all London to automatic working as soon as possible. This would include a large building off Tottenham Court-road to house the Langham-Museum automatic exchange. A large new building required to meet the growth of trunk traffic was expected to be started early next year on a site next to the new Faraday Building in Queen Victoria-street. It was hoped also to make a start very soon with a new building in Newgate-street to serve as the headquarters of the Engineering Department. At the Post Office Research Station at Dollis Hill a further block was shortly to be commenced to accommodate radio research work.

Reverting to the provinces, in addition to the Liverpool and Glasgow Exchange buildings already mentioned, an extension of the Stores Depot at Birmingham was to be carried out, the new block including accommodation for a chemical research laboratory; and at Bournemouth a large new station sorting office and garage was to be provided. Then at Glasgow a very large garage and engineering depot was to be erected, the largest of a number of such buildings for which their programme this year was noteworthy.

As regards Portsmouth, extensive alterations and improvements at the head post office had recently been made at heavy expense, including an extension of the telephone exchange to meet immediate requirements. A long view of the situation had been taken, and arrangements were in hand for carrying out in a few years' time a further and larger extension of the head post office premises and also providing a completely new telephone exchange on a fresh site. Consideration was also being given to the question of erecting in the town a building for an engineering depot.

SMOKE ABATEMENT CONFERENCE

The annual conference of the National Smoke Abatement Society was held at the Science Museum, South Kensington, from October 14 to October 17. Delegates from all parts of Great Britain present included representatives of nearly 100 leading local authorities, doctors, engineers, chemists, housewives, and the electrical, gas, coal, oil, and solid smokeless fuel industries. A number of papers were read, from which we take excerpts.

Grit from Factory Chimneys.

The suggestion that the work of preventing the emission of dirt and grit from industrial plants was beginning at the wrong end by installing devices in the chimney to arrest its discharge, instead of using cleaner coal, was made in a joint paper by Mr. A. T. Barber and Mr. T. F. Hurley, of the Fuel Research Station.

"There is unfortunately ample evidence everywhere," the authors stated, "of the need for directing still greater attention to methods of preventing emission of dust and grits from industrial plants, first by improvement in furnace design and operation, and secondly by installing suitable efficient dust arrestors. The emission of dust from boiler stacks is to some extent preventable by the use of cleaned coals. The necessity for cleaning coal of all grades is becoming more and more recognised, and as the demand increases and the price margin between clean and dirty coal diminishes, the use of clean coal becomes still more economical on all grounds. In addition to reducing the amount of ash, the cleaning of coal in many cases effects a considerable reduction in the sulphur content, and so reduces the contamination from this cause when the coal is burnt."

A committee of the British Standards Institution, it was stated, was engaged on the preparation of a standard method of testing dust extraction plant. "Pollution from the domestic chimney, by no means inconsiderable in amount, is practically entirely caused by soot—finely divided carbon together with tarry matter—a product of the imperfect combustion of soft bituminous coals. While the ultimate cure of this evil may necessitate legislation to prohibit the use of such coals for domestic purposes, the problem is slowly solving itself by the increasing use of electricity, gas, coke and other smokeless fuels for domestic heating or cooking."

Heavy Industries and Abatement Legislation.

In a paper on the smoke problem in the iron and steel industries, Mr. H. C. Armstrong said that anyone paying a return visit to Sheffield or Rotherham after an absence of some twenty years could not fail to be struck with the marked improvement in smoke reduction. This did not, however, mean that perfection had been obtained. That was still a long way off, but the whole subject was now being tackled from a scientific as well as practical point of view. Black smoke was waste, and it was naturally the first object of the manufacturer to avoid such loss, although he was usually equally anxious to attend to the æsthetic side.

"As a general rule," declared the author, "the new furnaces now being built are a great improvement on the original designs, and will considerably reduce the amount of smoke made. . . . It would be idle to pretend that there are no laggards, but joint action is so prevalent that no individual can afford long to ignore the use of progressive methods by the majority. Taking the long view and realising what a vast improvement has taken place in the years immediately past, the author of this paper would suggest that further legislation on the matter is unnecessary at present, and might even be injurious, both to the cause of smoke elimination and to a highly important industry."

The Domestic Smoke Nuisance.

In a contribution to this subject, Dr. Margaret Fishenden said that the prevention of smoke lay essentially in using the right fuel for the right purposes, and although in some cases that might mean a slightly increased cost, the present unsatisfactory state of affairs was largely due to imperfect organisation. The housewife did not always know what types of fuel were best for her particular purposes, and, in any case, could not be sure of getting uniform supplies from her coal merchant. If the country's fuel supplies were properly classified and distributed, and the coal merchant could be relied upon to advise the housewife as to the best types of fuel for different purposes, a great step forward would have been taken. Smoke abatement enthusiasts often asserted that coal grates should be abolished by law, but this would not be feasible except over a long period of years. Forty million tons of raw coal were burned annually in our domestic grates, which was far more than the 25 to 30 million tons treated by gasworks and electricity stations together. To replace this domestic coal by gas and coke the capacity of the existing gas works would have to be trebled. The use of alternative methods of heating must be given every encouragement, but in the meantime something must be done to reduce the smoke emission from coal grates. A united effort on the part of all housewives was wanted, and this, backed by the fuel producers and merchants, would render the smoke nuisance almost non-existent in ten years.

Seaside Air and Impurities.

In a paper on this subject, Dr. J. S. Owens said that an examination of the condition of the air at some of our seaside resorts would be very enlightening. When such places grew into cities the air which the inhabitants breathed was often no better than that of an inland city. The case was even worse owing to the concentration of invalids under the impression that they were getting sea air, whereas it was only on occasions when the wind was blowing from the sea that they got anything but ordinary city air. Anyone familiar with the manufacturing area of the Midlands knew that there was considerable smoke haze to be found drifting with the wind outside the cities. When a city was interested in purifying its atmosphere it became important to know how much of the pollution was contributed by its neighbours.

Glasgow's "Green Belt."

The negotiations between Glasgow Corporation and the county authorities for a green belt round the city are likely to prove successful. Mr. P. J. Dollan, chairman of the committee for the extension of the boundaries, reported on October 16 that he and the Town Clerk had conferred with the conveners of the Renfrewshire, Lanarkshire and Dumbartonshire County Councils with a view to bringing undeveloped lands within the city boundaries to be used for housing and recreation. The lands under consideration include territories north, south-west and east of the city, and will provide sites for 40,000 houses in addition to huge areas for recreation and social amenities.

PLASTER AND PLASTERERS' WORK

LECTURING on this subject on Wednesday, October 14, at Carpenters' Hall, Mr. A. H. Telling said that calcium carbonate was found in vast deposits of limestone in this country, but before it could be of use to the plasterer it must be burned, *i.e.*, the limestone must be put into kilns and its temperature raised to something like 1,000 to 1,300 degrees centigrade, thus producing quicklime, or, as the chemist called it, calcium oxide. The percentage of calcium carbonate in limestone varied greatly. Some Derbyshire limestone contained as much as ninety-seven per cent.; at the other end of the scale was blue lias, which might contain as little as fifty per cent., but which contained large quantities of silica and alumina. Blue lias lime was unsuitable for ordinary plaster, but was useful for constructional work in damp soils. Between it and fat limes, such as those of Derbyshire, was a whole range of types, varying in their rate of slaking, their yield of putty, *i.e.*, the mixture obtained by slaking lime with water, their degree of plasticity and their quickness of setting. Because of these differences the plasterer who stayed in one district long enough to get used to the workability of one type of lime found, when he moved, that he was confronted by a whole sea of troubles. The slaking of lime should be given to the most trustworthy man on the job, for intelligence was required to determine what quantity of water should be used for the particular type of lime, and great care to see that every particle was slaked. If any of the lime remained unslaked there was danger that it would slake and swell when the plaster was applied, and so cause blisters on the finished work.

Of the commercial dry hydrates, *i.e.*, limes slaked on a large scale by mechanical process and sold under proprietary names, the best were not so workable as lime slaked in the old-fashioned way, and the worst contained unslaked particles; but these commercial dry hydrates commended themselves to builders because they saved time, labour and space. The putty obtained in the traditional way by slaking lime with water should be allowed to stand for a month or two, and for fine work three months, before use. The ancient Greeks used to keep it for three years, but they believed in perfection in building, and were prepared not only to labour but to wait. A plastering tradition which showed signs of fading out was that internal plastering should be three-coat work. This class of work was objected to because of the extra cost and longer time required; but it gave the best results, and for dwelling rooms the specification should be, for ceilings and stud partitions, "lath, plaster, float and set," and for brickwork and concrete walls it should be "render, float and set."

Lathing.

A large proportion of plastering troubles arose from improper lathing. Riven laths were best, but sawn laths were cheaper. If sawn laths were used, all those should be rejected which were crooked or contained sap or knots. Before beginning to lath the operative should find out whether the surface to be covered was level, and if it was not it should be made so. Projections should be removed, and hollows should be remedied by nailing thin pieces of wood to the timbers where the depressions were until the required level was obtained. The laths should be fixed with quarter-inch spaces between, so that the plaster could get through and form hoops at the back. They should butt, never overlap, and at every three feet or less break joint. The first coat on laths was called the pricking up coat—on solid surfaces the rendering coat. For this, coarse stuff was used, consisting of one volume of putty to from one and a half to three of sand. Lime varied considerably in its sand-carrying capacity. In mixing the lime and sand, hair should be added at the rate of one pound to three cubic feet of stuff. For superior work, one pound of hair to every two cubic feet of stuff was allowed. The three ingredients should be thoroughly incorporated with each other. When this coat was applied, sufficient stuff should be pressed on and through the laths to form a key. In laying ceilings the stuff should not be laid on at right angles, but diagonally, each trowelful overlapping the other. A few hours after laying, the coat should be scratched over in diagonal lines to form a key, a pointed lath or a tool called a scratcher being used for the purpose. The edge of a trowel should not be used because it was liable to cut the hair. Extra care should be taken round doors and windows, a strong key being needed there because of vibration. Scratching should not be done deeply.

Floating.

When the first coat was dry the walls should be tested with a plumb line, a straight edge or level being used for ceilings; and hollows should be filled in. The floating coat was then applied. For this, horizontal screeds were laid near the ceiling, or at the foot of the intended cornice and at the skirting, vertical screeds being laid at the angles and intermediately round the walls about 5 or 6 ft. apart. These having been worked perfectly true with the floating rule, the intervening spaces were filled in with coarse stuff and the floating rule worked backwards and forwards until a perfectly level surface was obtained. Working with a hand float might follow this, but should not be necessary. The stuff used for the floating coat might contain rather less hair than was used for the first coat. Apart from that, it might be of the same materials, or might be of rather finer texture. The layer was usually half an inch in thickness, and before it hardened the surface should be roughened sufficiently to provide an adequate key for the setting coat. The setting for lime plaster might be of fine stuff or gauged stuff. Fine stuff consisted of one part putty to two or three parts of fine sand, with sometimes a proportion of well-beaten ox hair. Gauged stuff was produced by adding a proportion of plaster of Paris; for setting walls the proportion was usually about 25 per cent. The setting coat should not be laid until the floating coat was perfectly dry. It should be laid with the skimming float and well scoured with a hand float. For the final scouring a coarse-grained float should be used to give the work a fine surface, which could then be polished with a trowel. This coat should be about an eighth of an inch thick. Using reeds where now we used laths, the ancient Egyptians had made three-coat plaster work such as he had just described, and in spite of modern science that form of wall covering had not been surpassed.

Plaster of Paris.

It was a convention of the trade that such wall covering as he had been describing should be called "stuff," the name plaster being reserved for that containing plaster of Paris or other form of calcium sulphate. When gypsum was heated to a temperature of about 300 deg. F., it became plaster of Paris, which could be added to lime putty to hasten the set, and was used to make good defects in finished work, for repairs and for casting. The fact that it set far too quickly to be used as a setting coat for walls, and that consequently something had to be mixed with it to retard the setting, had led to the introduction by manufacturers of plasters sold under proprietary names. Gypsum plasters of this type were fire-resisting, produced a good, hard-wearing surface, and set in a little over two hours

Another type of gypsum plaster was produced by heating to a dull red heat. This was the hard burnt or dead burnt plaster, of which the set was naturally too slow; so that the manufacturer added something which hastened the setting. Such plasters were strong and durable; there was practically no volume change attached to their setting, and they could be trowelled to a hard surface.

Yet another type of plaster obtained from gypsum was the double hard burnt or double dead burnt, such as Keene's. The usual method of preparing this was to calcine the gypsum, then treat it with alum or other salts, and then calcine again at a very high temperature.

Gypsum was not the only form of calcium sulphate used for plaster. Nature provided copious deposits of calcium sulphate in the double burnt condition, and a proprietary plaster was now made from this similar to but cheaper than Keene's.

The methods of application of plasters did not differ much from those with lime putty, but, generally speaking, it was not so imperative that the work be three-coat.

The hardest and smoothest plasters were best for hospital work, but with the other kinds it was an advantage that they could be finished in a variety of ways. They could be stippled, combed or dragged, and such a surface was suitable for schools and lecture halls because it minimised echo.

External Work.

Speaking of external work, the lecturer said that, thanks to Portland cement, it could be executed in either two or three coats. If the surface to be covered was reasonably even and linable, two-coat work might be found satisfactory; but should the work be very rough and uneven, or in places more than three-eighths of an inch out of alignment, the work should be done in three coats. Before rendering, the wall should be cleaned and the joints raked out to form a key. Concrete walls needed chipping unless they had been left sufficiently rough. The walls must be thoroughly wetted, brickwork especially, as bricks were very absorbent. The material for the undercoat should consist of one part cement to three of clean sharp sand. After laying the base coat, if the three-coat method was employed, at least 48 hours should elapse before the next was laid. When the base had been prepared, the walls should be plumbed and dot lines driven in—some vertical others horizontal—to act as bearers for screeds. The spaces were then filled in and brought to a true surface by means of the floating rule.

All mouldings, mitres and returns should be executed before the finding or finishing coat was begun, and sufficient time should again elapse to ensure hardening. Before beginning to lay the finishing coat the surface of the floating coat should be well watered, the amount of water used being determined by (*a*) the state of the weather, (*b*) the time the floating coat had been laid, and (*c*) the composition of the wall.

The usual proportions of materials for the finishing coat were one of cement to three of sharp washed sand, but much depended on circumstances, and shrinkage cracks would occur if too much cement was used.

The finishing coat should be about three-sixteenths of an inch thick, and should be laid over the surface evenly. It should be ruled with a short rule, and when brought to a true and even surface should be gently rubbed up with the hand float, so that all the small holes were filled up, this rubbing being continued until the whole surface presented a uniform sand-faced appearance. Many plasterers preferred a cross-grained float for rubbing up. To eliminate unsightly marks left by the circular motion of the float the surface should be gently patted with the face of the float.

The lecturer described other finishes for exterior work. Possibly the most popular, he said, was the scraped texture. To effect this a layer of cement was required which should be at least a quarter of an inch thick. This layer should be roughly finished with a wood float and left for a few hours, the time varying according to the weather. Only experience could decide the exact period, but the cement must be allowed to become just firm enough for effective working but no firmer. The best implement to use for the scraping was a wood float having its face covered with a piece of expanded metal such as was used for lathing. This was drawn across the face of the work with sufficient force to remove the top surface to a depth of about a sixteenth of an inch, the piece of expanded metal being renewed when worn.

B.S. SPECIFICATION

SANDSTONE KERBS AND CHANNELS.

The British Standards Institution have just added to the series of B.S. specifications relating to "Kerbs, Channels, Quadrants and Setts" by the issue of one covering such products made of sandstone. The new specification (B.S.S. No. 706-1936) lays down the quality of the stone, and a minimum crushing strength under compression of 15,500 lb. per sq. in. is required. Other clauses governing quality relate to structure, texture, absorption of water and density of the stone.

There are four standard dressings which correspond to the trade definitions of "fine axed," "coarse axed," "rough punched," and "sawn finished." Illustrations of these dressings are included to serve as a general guide. As in the other similar specifications for "Granite and the Cast Concrete," standard dimensions for kerbs, channels, quadrants and setts are specified.

There are two appendices to the specification, both of which describe in detail method of testing; one refers to the method for determining the resistance to crushing and the other to the method for determining the absorption of water. The specification will mainly be of interest to road engineers.

SHORT LINK WROUGHT-IRON CRANE CHAIN.

This specification (394-1936), first issued in 1930, has recently been revised. Two important changes have been made in the specified requirements. The first is that the elongation under test load for the "special" quality has been increased, and the second is that all testing and examination is now specified to be carried out at a public test house licensed by the Board of Trade (commonly known as Lloyds Proving House).

The inclusion of these new provisions (which are concurred in by the trade) should be of material benefit to the user by ensuring that the "Special" quality is made from "special" iron, and the additional safeguard that the chain is certified as in compliance with independent specified tests.

In other respects the specification remains unaltered; its scope is still limited to 1½ in. as the maximum size, and where larger sizes are required the weight per fathom, test load and elongation under test load are to be the subject of mutual agreement between manufacturer and purchaser.

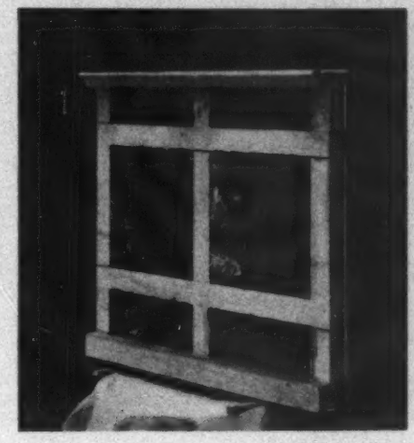
The recommendation in the previous edition that the safe working load should not exceed one-half the specified proof load also remains unaltered, as also the proviso that where conditions of use are exceptionally hazardous or severe the permissible working load should be less than one-half the specified proof load.

Copies of both these issues may be obtained from the Publications Department, British Standards Institution, 28, Victoria-street, S.W.1, price 2s. 2d. each, post free.

NEW INVENTION

MASS-PRODUCED WOOD INTERIORS.

An interesting and useful invention used on a large scale for the first time in the construction of two new blocks of flats at Church Close, Epsom, is a speedy method of erecting all-wooden interiors, of special value in the construction of buildings containing a large number of rooms. It is based on the idea that the component parts used for the construction of internal walls and surfaces can be produced with the maximum speed, efficiency and economy in the factory by mass-production methods. Extensive experiments show that such components can be speedily assembled, are light in weight, sound-proof and fire-proof, and that, owing to the fact that no moisture is used in their construction, they require no drying-out process. In the work at Epsom the constructor was provided merely with a brick shell with concrete floors and chimney breasts. He had to erect all the partitions and lay the flooring with factory-manufactured wood components.



MODEL SHOWING TYPE OF INTERNAL CONSTRUCTION.

MODEL SHOWING WALL COMPLETE WITH FACE BOARD.

Briefly, the invention consists of utilising sole and ceiling plates for supporting the boarding (or other material) used in the construction of internal walls or wall surfaces. In erecting an internal wall, the work starts with the use of a timber sole plate which is grooved to take a number of vertically arranged studs or struts suitably spaced apart. The upper ends of the studs engage a groove in a timber ceiling plate. They are stub-tenoned at top and bottom to engage the sole and ceiling plates and grooved on opposite sides at four points to receive horizontally arranged timber battens which are used as fixings for the skirting and picture rails.

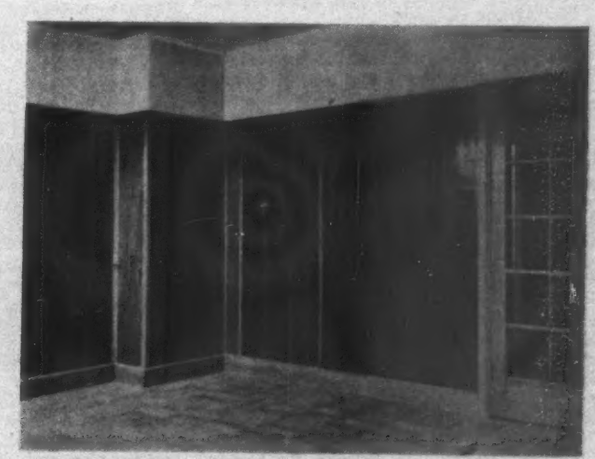
Accurate spacing is obtained by placing timber distance pieces between the studs. At internal and external angles the walls have moulded timber uprights. Door frames are carried from the floor to the ceiling and are grooved, rebated and moulded so that the architraves are made in one solid piece together with the door frame itself. If desired, of course, the architraves may be constructed separately, and if so should be formed from a hard wood with a veneered surface. The picture rail, which is moulded and grooved, can be secured to the front surface of the boarding or can be fixed in the uppermost groove of the vertically arranged studs.

The next stage is the covering of the assembled studding with suitable boarding. The best results are obtained by using a composite boarding consisting of a plaster board and fibre board, separated by a waterproof casein cement, and hydraulically pressed together. The upper edge of the boarding fits into a groove in the ceiling plate and the vertical edge into grooves in the uprights or door frame. If standing alone, however, they can be provided with wooden edges, grooved to receive birch dowels which unite the sections of boarding together.

The faces of the plaster board may be painted, papered, or veneered with hardwoods. Where the sole plates and ceiling plates meet the floors and ceilings a layer of sound-proof materials, such as hair-felt, should be inserted in the specially provided recesses.

The skirting can be removable, a cavity being left for electrical or other wiring. A built-up and veneered skirting can be used if desired.

HARDWOOD FITMENTS USED IN CONJUNCTION WITH WOOD WALLS.



WOOD WALLS WITH A HARDWOOD FINISHED FACE AND HARDWOOD CORNER MOULDINGS.

ALL-WOODEN INTERIORS IN FLATS AT CHURCH CLOSE, EPSOM.

SOLID DOOR FRAME WITH ARCHITRAVES COMBINED.

(See previous page.)

In the case of an internal wall, of course, the sole and ceiling plates are common to both rooms. Two layers of boarding are used, one on either side of the vertically arranged studs, a cavity wall thus being formed.

The flooring may be built-up in any suitable manner, such as, for example, a combination of fibre board, plywood and oak or other hard wood veneer, the whole being hydraulically pressed together in sheets. The ceiling should consist of plaster and fibre board hydraulically pressed together.

The inventors of this system are Mr. W. J. Hitching, of Hitchings Flush Woodwork, Ltd., East Ham, and his colleague, Mr. F. Ludford. The architect for the Epsom flats was Mr. Arthur C. Geen.

We understand that these all-wooden interiors are to be used shortly in several London blocks of flats being designed by Mr. C. Howard Crane, Romney House, Marsham Street, S.W.1.

Salisbury Cathedral Spire.

An appeal for £10,000 to repair the spire, tower and cloisters of Salisbury Cathedral has been issued. According to Mr. W. A. Forsyth, the consulting architect of the cathedral, it was essential that repairs should be carried out immediately, not only to the tower and spire, but to the masonry all over the building. The cathedral was suffering from the effect of exposure to the weather and several very severe gales. It was known that the spire had been moving in high winds lately, but that in itself was nothing to worry about. The serious problem was the cumulative effect of the many small blemishes in the masonry as a whole, though the state of the tower, just under the spire, was the worst. The repair work is estimated to cost £10,000, of which £5,000 is required immediately.

MASONRY APPRENTICES

PRESENTATION OF PRIZES.

Mr. Eric Burt, F.I.O.B., President, L.M.B.A., occupied the chair at the presentation of prizes, on October 15, to masonry apprentices by Alderman Sir Harry Twyford, Master of the Worshipful Company of Masons, the function taking place at the premises of L.M.B.A. in Russell-square. Among those present were Major A. D. S. Rice, Major F. A. Wallis, Major L. Shingleton, and Messrs. R. F. Galbraith, G. R. Holland, J. H. Rooff, E. H. Smith, Geo. Robinson, H. B. Kerr, A. O. Carter, Fred Thorne, W. G. Soole, H. S. Thornton, L. E. C. Simpson, F. W. Stratton, F. M. May, W. M. Hill, E. W. Garrett, J. S. Galbraith, H. Wykeham, Clifford C. Troliope, F. J. Gayer, O. G. Doxat-Pratt, and W. J. Rudderham.

After the opening speech of welcome to the Chairman, Mr. R. F. Galbraith read a statement on masonry apprenticeship.

Sir Harry Twyford then presented the prizes, as follows:—

Grade 1 (over four years at the trade): 1st, Mr. D. Murphy, of Messrs. Trollope and Colls, Ltd., silver medal and prize presented by the Worshipful Company of Masons; 2nd, Mr. J. Moore, of the South Western Stone Co., Ltd.

Grade 2 (over two and under four years at the trade): 1st, Mr. H. Lane, of Messrs. Webber and Corben, Ltd.; 2nd, Mr. G. Gibbs, of Messrs. Damer Bros., Ltd.

Grade 3 (up to two years at the trade): 1st, Mr. W. E. Bowler; 2nd, Mr. W. T. Groves, both of the South Western Stone Co., Ltd.; and 3rd, Mr. E. Stone, of Messrs. Holloway Bros. (London), Ltd. A number of consolation prizes were also awarded.

A vote of thanks to Alderman Sir Harry Twyford was proposed by Mr. R. F. Galbraith, President, London Association of Master Stonemasons. The vote was seconded by Major L. Shingleton, Senior Vice-President of the L.M.B.A.

Sir Harry Twyford, replying, said one had only to look at the City bank buildings to see some of the fine stone buildings that had been erected, and then if one looked at Waterloo Bridge, which was being demolished, one could see the fine stone that was used in the past.

A vote of thanks to the chairman was proposed by Mr. G. R. Holland, Junior Vice-President of the L.M.B.A., and seconded by Mr. F. Partridge, Past President of the London Association of Master Stonemasons. The Chairman briefly replied.

Coal-Burning Appliances Consultative Board.

The Coal-Burning Appliances Joint Consultative Board held its autumn quarterly meeting in London last week. Colonel Greenly, the chairman, presided, and representatives of all the constituent bodies attended. It was announced that, since the previous meeting, the British Federation of Plumbers' Merchants' Associations had accepted an invitation to participate in the work of the Board. In his report the Secretary stated that joint committees of ironmongers, builders' merchants, coal merchants and coal-burning appliance manufacturers had been set up in a number of towns. Model programmes of work had been prepared for these committees, who had been asked to give their views as to the best means of promoting local co-operation. The results of the preliminary meetings had been encouraging, and had shown that, providing the Board itself had sufficient financial resources to assist the local committees in their work, valuable results could be obtained. The salient feature of all the meetings had been the recognition of the value of co-operation between the coal and hardware trades.

The Education Committee of the Board reported that a series of educational lectures to audiences composed jointly of coal merchants, ironmongers and builders' merchants, and their assistants, had been arranged for the winter. A further meeting of the Board was called for November 30.

BUILDING AND RECOVERY

In a letter to *The Times*, commenting upon a statement by the Chancellor of the Exchequer that, because "the increase in employment in the building trade since 1932, when the rise began, and including the increased employment in the ancillary trades, cannot be put at much higher than 350,000" (which is one-quarter of the total increase in employment in all industries), house-building "cannot possibly have played a major part in the recovery that we see around us," Mr. Sydney Tatchell, President of the Building Industries National Council, writes as follows: "Assuming that Mr. Chamberlain's figures are correct, it is surely a highly significant fact that the building industry alone has accounted for no less than one-quarter of the total increase in employment in this country since 1932. To argue in spite of, or rather because of, this fact, that an increase in employment in the building industry of such dimensions has not played a major part in recovery is surely to ignore the far-reaching and beneficial effects on all industries catering for the home market of increased expenditure through the building industry. On Mr. Chamberlain's own figures, increased employment in the building and allied industries gave rise to an increase of some £1,250,000 in weekly expenditure on food, clothing and other necessities.

"My council have repeatedly demonstrated the widespread stimulus to industry generally arising from increased building activity, and have shown that a given increase in employment in building gives rise to increased employment elsewhere, in transport and through increased expenditure of wages, amounting to between one and a half times and twice the increase in direct employment in building. This same conclusion has also been arrived at, completely independently, by such a high authority as Mr. J. M. Keynes. In Sir Arthur Salter's words: 'The building trade is always a key-point in the economic structure, and any improvement there would quickly radiate.'"

BUILDING RESEARCH STATION

EFFECT OF CREEPERS ON STRUCTURES.

The following question was submitted to the Building Research Station. The reply is Crown Copyright:—

An inquirer was desirous of improving the somewhat displeasing appearance of some large buildings, and asked whether creepers trained on the walls would be likely to cause any deterioration of the masonry or have other harmful effects.

Reply.—Ivy can cause serious damage to masonry. Its harmful effects occur most prominently in ancient masonry, and it is possible that it is not seriously injurious to new and sound walls; but, because it depends for support on aerial roots which penetrate into fissures or open joints, it is a plant which, on the whole, should be avoided. Judging from observations on buildings, the common clinging Virginia creeper (Ampelopsis Veitchii) cannot be regarded as harmful, provided it is regularly cut back to prevent its reaching roof gutters and tiles. The suckers adhere very tenaciously, to such an extent indeed that when the creeper is removed from a sound surface, many of the suckers remain adhering to the wall. From a friable surface fragments of stone may become detached, but this is hardly a serious objection to the creeper. There is something to be said for the view that the creeper may tend to restrict evaporation, but it may be said with equal force that in summer the leaves prevent rain from reaching the wall.

Another common creeper (Vitis quinquefolia) needs mechanical support, and some damage may be caused in providing it. This applies also to other climbing plants, such as roses, honeysuckle and clematis, but should not necessarily preclude their use. It appears then that harmful effects on the masonry are not to be expected from creepers other than ivy, provided attention is given to prevent choking of gutters, etc.

NEW BUILDINGS IN LONDON

ALPERTON.—Rebuilding.—Messrs. F. J. Fisher and Sons, 35, John-street, W.C.1, are the architects for the rebuilding of the "Royal William" public-house in Ealing-road, for Messrs. Watney, Combe, Reid and Co., Stag Brewery, S.W.1.

BARNET.—Shops.—Messrs. L. T. Swanne and Co., Green-lanes, Wood Green, N.13, have had plans prepared for a block of five shops with flats above in Church Hill-road.

BATTERSEA.—Extensions. — And alterations are to be made to the buildings at Sir Walter St. John's Schools, Battersea High-street, S.W.11, including a new junior school, enlargement of the Great Hall, new changing rooms, kitchens, etc. Plans have been prepared by Mr. Charles W. Baker, A.R.I.B.A., 13, South-square, Gray's Inn, W.C.1. No contracts placed.

BERWICK-STREET. — Building. — Plans have been prepared by Mr. Brian L. Sutcliffe, F.R.I.B.A., 5, Manchester-square, W.1, for a block of shops, showrooms and offices. The contract has been placed with Messrs. C. P. Roberts and Co., Ltd., 31, High Holborn, W.C.1.

CAMBERWELL. — Rebuilding. — Messrs. Hoare and Co., Ltd., are rebuilding the Prince of Wales public-house, Knatchbull-road and Denmark-road, S.E. Mr. S. Clark, A.R.I.B.A., 86, Fenchurch-street, E.C., is the company's architect.

CAMBERWELL. — Rebuilding. — Mr. William Stewart, F.R.I.B.A., 4, Aldgate High-street, E.C., is the architect for the rebuilding at Clarkson Arms, 59 and 61, Carlton-grove, S.E.

CATFORD.—Premises.—Messrs. Montague Burton, Ltd., are erecting shop premises adjoining the "Rising Sun" public-house, Rushey Green.

CATFORD. — Shops. — Messrs. Wates (Streatham), Ltd., 95, London-road, Mitcham, S.W., are to erect shops and flats on the west side of Verdant-lane. The plans have been approved by the Lewisham B.C.

CLERKENWELL GREEN.—Alterations.—Are to be carried out at the branch post office, for H.M.O.W., by Messrs. Soole and Son, Ltd., Dunstable-works, Richmond, Surrey.

CROUCH END.—Flats.—Plans have been prepared for the development of Monkridge, Crouch End-hill, N., by the erection of 36 flats in two blocks, with lock-up garages, etc. The architect is Mr. Henry J. White, 407, Holloway-road, N.7. No contracts placed.

CROYDON.—Alterations.—And additions are to be made to the premises of the Castle Engineering Co., in London-road. The architects are Messrs. F. W. Rees and Partners, 27-31, High-street, Croydon.

EAST HAM.—Baths.—The C.B. have directed the Borough Engineer to submit draft plans and estimates for the erection of baths in the north of the Borough.

EAST HAM.—Offices.—The Engineer and Manager of the C.B. is to submit proposals for the erection of new offices, stores and workshops on the site in Nelson-street and Wellington-road.

EDGWARE.—Public-house.—Messrs. Dawe and Knight, 83, High-street, Watford, are the architects for a new public-house in the High-street. No contracts placed.

ERITH.—Extension.—Messrs. Doulton and Co., Ltd., are to make extensions to their Erith works. The contractors are Messrs. W. Harris, Ltd., Fernhill-street, E.16. The architect is Mr. P. M. Fraser, F.R.I.B.A., 87, Buckingham Palace-road, S.W.1.

ESSEX. — Building. — The C.C. has approved schemes for a new county high school at Chingford at £43,041, and adaptation of Fanshawe school, Dagenham, at £3,611.

FELTHAM.—Factory.—The contract for the large factory, warehouses, canteen, etc., to be built at Hatton Corner, Great West-road, for the Champion Sparking Plug Co., Ltd., 83, Pall Mall, S.W.1, has been placed with Messrs. J. Jarvis and Son, Ltd., 8, Wormwood-street, E.C.2. The plans have been prepared by Messrs. Wallis, Gilbert and Partners, 15, Elizabeth-street, S.W.1.

FOREST HILL.—Alterations.—Mr. W. G. Ingram, F.R.I.B.A., 4, Verulam-buildings, Gray's Inn, W.C.1, is the architect for alterations at St. German's Hotel, Brockley Rise.

HAMPSTEAD.—Flats.—The Freehold and Leasehold Flat Developments, Ltd., Sentinel House, Southampton-row, W.C.1, has acquired a site in West End-lane and Cleve-road, N.W., for a block of 70 high-class flats, etc. The contract has been placed with Messrs. J. Cartwright, Ltd., 2, Duke-street, W.C.2. The architects are Messrs. W. H. Hayward and Co., F.S.I., 231, Strand, W.C.2. The quantity surveyors are Messrs. Gleeds, 106, Regent-street, W.1.

HARROW.—Extension.—Messrs. Murrell and Piggott, 44, Bedford-row, W.C.1, are the architects for the Harrow Baptist Church extension scheme in College-road. The scheme is to cost £7,600.

HENDON.—Welfare Centre.—Tenders are invited by the B.C. for a welfare centre and school clinic in Hartley-avenue, Mill Hill, N.W.7. Mr. A. O. Knight, Borough Engineer and Surveyor, has prepared the plans.

HOLLOWAY. — Premises. — To form a branch of the Provident Clothing and Supply Co., Ltd., Bradford, are to be erected at Seven Sisters-road. The contractors are Messrs. H. Groves and Sons, Stockwell-street, Greenwich, S.E. The architect is Mr. G. T. Harman, 90a, High-street, Lewisham, S.E.

ILFORD.—Alterations.—Are to be made to the premises in the High-road for Messrs. Lloyds Bank, Ltd., Lombard-street, E.C., to the plans of their surveyor, Mr. A. G. Johnson. The builder is Mr. R. F. King, 28, North-street, Romford.

ISLEWORTH.—Shops.—Plans have been prepared by Mr. E. W. Palmer, Clock-chambers, London-road, Enfield, for a block of ten shops with flats above in Twickenham-road, and 44 flats and garages in North-street, on the Silverhall estate. No contracts placed.

ISLINGTON.—Dwellings.—The B.C. has recommended the tender of Messrs. E. S. Moss, Ltd., 159, Brent-street, Hendon, N.W.4, at £24,600 for 40 dwellings on the site of 81-85 (odd), Crouch Hill. The plans are by Mr. E. C. P. Monson, F.R.I.B.A., 120, Moorgate, E.C. The quantities are by Mr. F. N. Falkner, 14, Princes-street, W.1.

IVER.—Bank.—Messrs. Barclays Bank, Ltd., Lombard street, E.C.2, have acquired a site on the Richings Park estate for the erection of branch offices. Arrangements are at present in the hands of the Premises Department, 37, King William-street, E.C.4. No contracts placed.

KENTON.—Centres.—The Harrow U.D.C. has decided to purchase land in Honeypot-lane having a frontage of 60 ft. from Messrs. John Laing and Sons, Ltd., for maternity and child welfare purposes. A similar decision has been arrived at in respect of land on the southern boundary of Kenmore Park estate. The land is to be used for maternity and child welfare purposes.

KENTON. — Church. — The Wembley U.D.C. has approved plans for the Trustees of Kenton-road Methodist Church for a church in Kenton-road.

KINGSBURY. — Flats. — The Curner Estates, Ltd., Valley-drive, N.W.9, have had plans passed for a block of 52 flats and three garages in Lowther-road.

KINGSBURY. — Swimming Bath. — The Surveyor to the Wembley U.D.C. has prepared a scheme for a new open-air swimming bath on the Roe Green Park. The estimate for the work is £27,622.

MERTON.—Shops.—The U.D.C. has given provisional consent to the erection of a three-story building, comprising shops with living accommodation, in Grand-drive, between Cannon Hill-lane and Hillcross-avenue. Mr. R. T. Berry has made the application to the council.

MERTON.—Extensions.—The U.D.C. has approved plans for extension to the premises of Messrs. Ranelagh Coachworks, Ltd., in Lombard-road.

MILL HILL.—Additions.—Including a new gymnasium, are to be made to the St. Gabriel's Schools, Flower-lane, N.W.7. The architect is Mr. C. W. Fox, A.R.I.B.A., 48, Attimore-road, Welwyn Garden City. No contracts placed.

NEASDEN. — Depot. — The L.P.T.B., 55, Broadway, S.W.1, has decided to build a large rolling stock depôt, providing accommodation for about 650 passenger coaches. The contract has been placed with Messrs. Haymills (Contractors), Ltd., Hanger-green, Ealing, W. Plans have been prepared by the board's engineering and architectural staffs, the chief architect being Mr. S. A. Heaps, L.R.I.B.A.

NORTHOLT. — Library. — The Ealing Libraries Committee has agreed to the Town Council reserving a site for library purposes at Western-avenue, adjoining the Council School.

PALMERS GREEN.—Shops.—Mr. Thomas F. Ford, F.R.I.B.A., 12, City-road, E.C.1, has prepared plans for a block of 9 shops with 10 flats above, a block of 18 flats, and 10 lock-up garages, forming a scheme for the development of the Old Park House site, Old Park-road, N.

POPLAR.—Extensions.—The B.C. has recommended application to the L.C.C. for sanction to the borrowing of £18,720 in respect of the cost of extensions to the existing motor garage and the provision of a machine shop and messroom at Glaucus-street.

POPLAR.—Flats.—The L.C.C. propose to demolish a considerable area in the vicinity of Wades-place, and erect several blocks of flats to provide approximately 250 dwellings.

QUEENSBURY.—Shops.—Messrs. Lander, Bedells and Crompton, 6, John-street, W.C.1, are the architects for nine shops with maisonettes over on a site at Queensbury Station-parade.

RICHMOND (SURREY). — Flats. — The T.C. are inviting tenders for 28 flats at Crofton-terrace clearance area, Lower Mortlake-road. The Borough Engineer, Hatham House, Heron Court, has prepared the plans.

SACKVILLE-STREET. — Rebuilding. — Clients of Messrs. White, Druce and Brown, 6, Hanover-square, W.1, are to rebuild the premises at Nos. 6, 7 and 8, as modern shops, with five floors of showrooms and offices above. The contract has been placed with Messrs. C. F. Kearley, Ltd., 31, Davies-street, W.1. The architect is Mr. George J. Skipper, F.R.I.B.A., 39, St. James's-street, S.W.1.

SOUTHGATE.—Shops.—Plans have been prepared by Messrs. Marshall and Tweedy,

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FF.R.I.B.A., 9-13, New Cavendish-street, W.1, for a block of 13 shops and flats in Chase Side, N.

SOUTH HARROW.—Club.—A scheme for the provision of a Conservative club costing £4,500 at South Harrow has received unanimous approval. The site of the building is in Eastcote-lane. Plans had been prepared and passed by the Council.

SOUTH HARROW.—Store.—Messrs. F. W. Woolworth and Co., Ltd., 1, New Bond-street, W.1, have acquired Messrs. Porter's premises at the corner of Eastcote-lane and Northolt-road for conversion into a branch store. The building work will be carried out by Messrs. Woolworth's own building department from plans by Mr. C. B. Donaldson, architect to the company.

SOUTH NORWOOD. — Extension. — For extensions to the Spurgeon's College, Falkland Park, Mr. H. W. Parnacott, A.R.I.B.A., 93, York-road, S.E.1, is the architect, and the builders are Messrs. W. L. Cook and Co., Ltd., Hamilton-road, S.E.27.

SUTTON.—Premises.—The National Provincial Bank, Ltd., 15, Bishopsgate, E.C.2, has acquired a site in High-street and Grove-road, for branch banking premises. The plans have been prepared by the bank's architect, Mr. W. C. F. Holden, F.R.I.B.A. No contracts placed.

SYDENHAM.—Building.—The Lewisham B.C. has approved plans to develop a site on the south side of Thorpewood-avenue, submitted by Mr. E. C. Christmas, builder, 55, Dartmouth-road S.E.23.

SYDENHAM.—Maisonettes.—Are to be erected at 27-31, Russell-street. Mr. F. Northeast, 422, Clapham-road, S.W.9, is the builder.

TWICKENHAM. — Flats. — Mr. W. P. Grant, The Nest, Nelson Grove-road, Wimbledon, S.W., has had plans prepared for 40 flats and 14 shops in Belmont-road and Manor-road. No contracts placed.

WALTHAMSTOW. — Building. — Mr. G. W. Newman, 8, Bush Hill-road, N.21, is the architect for the proposed development on the Nightingale Hall estate. The plans have been approved.

WALTHAMSTOW. — Library. — Revised sketch plans have been prepared by the Borough Engineer and Surveyor for the branch library at the junction of Wood-street and Forest-road.

WALTHAMSTOW. — Fire Station. — The T.C. are proposing to erect a sub-fire-station and station-officer's house in Oak Hill.

WALTHAMSTOW.—School.—The Board of Education has approved the revised plans for the new Handsworth-avenue senior school to be erected for the T.C. from plans by Mr. F. H. Heaven, A.R.I.B.A., architect to the E.C.

WEMBLEY. — Hall. — The U.D.C. has passed plans for the Monks Park Methodist Committee, for a Methodist hall in Park View.

WEMBLEY.—Houses.—Messrs. Comben and Wakeling, Ltd., builders, are erecting 66 houses and 64 garages on the Lindsay Park estate.

WEMBLEY.—Houses.—The U.D.C. has approved plans for the Heather Park Estates for 32 houses comprising 64 flats in Kenmere-gardens, Heather Park-drive; eight shops with flats over and nine garages at the junction of Lyon Park-avenue and Heather Park-drive, and 43 houses comprising 86 flats on the Heather Park estate.

WEMBLEY.—Town Hall. — Approval in principle has been given to the Wembley Council's £160,000 town hall scheme, by the M.H. The architect is Mr. Clifford Strange, 31, Upper Montague-street, W.1.

WESTMINSTER. — Housing. — The City Council are proposing a housing scheme on a proposed site abutting on Grosvenor-road, Glasgow-terrace, and Lupus-street, Millbank, S.W.1.

WIMBLEDON. — Additions. — The Corporation has placed a contract with Messrs. Hansard, Ltd., 152, Great Portland-street, W.1, for additional building adjoining the Central Schools from plans prepared by the Borough Surveyor, for £8,874.

NEW CINEMAS

BIRMINGHAM.—Plans for a cinema to be erected on a site at the corner of Flaxley-road and Wynhurst-road, Stechford, are to be prepared by the staff of Messrs. H. Dare and Son, Ltd., builders and contractors, Alum Rock-road, Stechford, Birmingham.

BUXTON.—The Buxton and High Peak Entertainments, Ltd., 48, Bridge-street, Manchester, has accepted the tender of Messrs. P. Hamer, Ltd., 15, Park-street, Swinton, Manchester, for the erection of a cinema in Spring-gardens. The architects are Messrs. George Westcott and Sons, F.M.S.A., Gamecock-chambers, 13, Bridge-street, Manchester.

CAMDEN TOWN.—The Twentieth Century Cinemas, Ltd., Brettenham-house, Lancaster-place, W.C.2, have acquired a site for a cinema. Plans are being prepared by Messrs. J. Stanley Beard and Bennett, 101, Baker-street, W.1. No contracts let.

GATLEY.—Mr. W. W. Stansby has acquired a site in Northenden-road for the erection of a cinema.

DEPTFORD. — Messrs. Odeon Theatres, Cornhill House, Bennetts-hill, Birmingham, have acquired a site for the erection of a cinema. The architect is Mr. George Coles, F.R.I.B.A., 40, Craven-street, Strand, W.C.2.

ILFORD.—The Associated British Cinema Corporation, Ltd., 30, Golden-square, W.1, have placed a contract for the erection of a cinema at the corner of High-road and Lockwood-road, with Messrs. Hunter and Clark, Ltd., 7, Buckhold-road, Wandsworth, S.W.18. The architect is Mr. W. Glen, F.R.I.A.S.

KINGSBURY.—Plans submitted by Mr. Cecil Masey, F.R.I.B.A., 15, Caroline-street, W.C.1, for the erection of a cinema and shops at Queensbury Station for General Cinema Theatres, Ltd., Hazlitt-house, Southampton-buildings, W.C.2, have been approved.

KIRKCALDY.—A contract for the main building work on a new cinema in the High-street (Messrs. McNair and Elder, architects, 272, St. Vincent-street, Glasgow) has been placed with Messrs. Scott and Co., Dellburn-street, Motherwell.

LEATHERHEAD.—The excavation contract for the cinema, shops, showrooms, etc., in Church-street, Leatherhead, having been completed, tenders for the buildings are being invited on plans prepared by Mr. A. P. Starkey, 315a, Station-road, Harrow, and Messrs. Richardson and Gill, FF.R.I.B.A., 41, Russell-square, W.C.1, joint architects for the Leatherhead Property Trust, Ltd., Capel House, New Broad-street, E.C.2.

MIDDLESBROUGH.—It is proposed to build a cinema at Linthorpe on the site of Acklam-road and Cambridge-road junction. Plans are by Messrs. R. Kitching and Co., 21, Albert-road, Middlesbrough.

ODIHAM.—Messrs. T. Elvins and Sons, Soho Hill, Birmingham, are to erect a cinema at Dunleys Hill to seat 500 persons. The architect is Mr. H. S. Scott, A.R.I.B.A., 115, Colmore-row, Birmingham.

OLDHAM.—We are informed that the contractors for the reconstruction of the Grand Theatre are Messrs. G. F. Kirk, Ltd., of Chesterfield, and not as stated in our October 9 issue. The architects are Messrs. J. Owen Bond and Son, 26, Tombland, Norwich.

PECKHAM. — Mr. Andrew Mather, F.R.I.B.A., is the architect for the Odeon Cinema to be erected on the site of the Queen's Theatre, Peckham-road.

PUTNEY.—Messrs. T. H. Adamson and Sons, 145, High-street, S.W.15, have secured the contract for the erection of a cinema in High-street, for Twentieth Century Cinemas, Ltd., Brettenham-house, Lancaster-place, W.C.2. The architects are Messrs. J. Stanley Beard and Bennett, 101, Baker-street, W.1.

REGENT-STREET, S.W.1. — Messrs. Hegeman-Harris Co., Inc., 16, Charles-street, S.W.1, have secured the contract for the erection of a cinema, restaurant, shops, etc., in Regent-street, Carlton-street and St. Albans-place, S.W.1. Work will commence shortly. The architect is Mr. Robert Cromie, F.R.I.B.A., 6, Cavendish-square, W.1.

WASHINGTON, CO. DURHAM.—Mr. J. W. Evans, 18, Norfolk-street, Sunderland, has secured the contract for the erection of a cinema in Fatfield-road. The architect is Mr. A. J. Lamb, A.I.A.A., 16, Dean-street, Newcastle-on-Tyne.

WATERFORD.—A site in Barronstrand-road is now being cleared preparatory to the erection of a cinema to be called the Savoy. The builders are Messrs. John Hearne and Sons, Ltd., South Parade, Waterford, and the architects are Messrs. Robinson and Keefe, 8, Merrion-square, Dublin.

WIDNES.—Messrs. John Rimmer and Son, Ltd., 70, Low Hill, Anfield, Liverpool, have secured the contract for the erection of a cinema in Widnes-road for Century Pictures (Widnes), Ltd., West-street. The architect is Mr. A. E. Shennan, F.R.I.B.A., 17, North John-street, Liverpool.

NEW PUBLIC WORKS

BROMSGROVE.—The U.D.C. have passed plans for an extension of the present council offices, the erection of a new council chamber and the building of a town hall, all upon the present Council building site in the centre of the town. The estimated cost of the buildings is £30,000 and, including alterations to be made at the entrance to the Civic Centre, and the provision of a car park, it is anticipated the total cost will be £34,000. The architect is Mr. C. E. Bateman, F.R.I.B.A., 18, Bennett's-hill, Birmingham.

GREAT BRITAIN.—Among the contracts advertised in this issue by public or local authorities as being open to tender are:—Bedfordshire C.C.—Erection of new junior school and alteration to existing junior school at Shefford; Whitehaven T.C.—Erection of junior and infants' school at Kells; Plymouth C.B.—Erection of observation block at Swilly Hospital; Northampton C.C.—Alterations and additional classroom, extension of offices at Yardley, Hastings C. school; and Thornaby-on-Tees T.C.—Erection of public swimming baths.

HATFIELD.—The Parish Council propose erecting a bathing pool. To assist them in their deliberations, the Committee have engaged the services of Messrs. A. W. S. and K. M. B. Cross, 46, New Bond-street, W.1. The architects have been instructed to prepare preliminary plans of a pool, on a site near Stockbreach-road, with dressing accommodation, car park and the usual offices, together with an estimate of the cost involved.

LOW FELL.—A contract for the first of the engineering contracts for road and ground developments at the Team Valley Trading Estate for the relief of the north-eastern districts has been placed with Messrs. G. Wimpey and Co., Ltd., 27, The Grove, Hammersmith, W.C. The price is stated to be in the neighbourhood of £700,000.

NEW BRICK WORKS

A tour of inspection of the new Ridgmont works of the Marston Valley Brick Co., Ltd., was made on Wednesday last week. The erection of these works was begun in March of last year, and they are now in full operation and capable of producing about 150,000,000 fletton bricks per annum. The clay used for the bricks is ground into particularly fine particles and mixed by a new method which ensures that the finished bricks have a very even texture. The ground clay is conveyed by means of steel-band conveyors to the presses, which move along the works from chamber to chamber. On either side of the kiln there is a raised platform, so that the bricks can be loaded on to lorries as they are taken from the chambers, of which there are 148 in number, so as to ensure as little delay as possible in the despatch of orders. The Ridgmont works, together with the Marston works, are capable of producing 350,000,000 bricks (called Marston Bispres) per annum.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st JANUARY, 1936.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Crafts-men.	Lab-ourers.
Aberdare	1/6	1/1½
Abergavenny	1/6	1/1½
Abingdon	1/5	1/0½
Accrington	1/6½	1/2
Aldeburgh	1/2½	11
Aldershot	1/3½	11½
Alfreton	1/6½	1/2
Alnwick	1/6	1/1½
Altrincham	1/6½	1/2
Amble	1/6	1/1½
Amersham	1/4½	1/0½
Ammanford	1/6½	1/2
Andover	1/3½	11½
Ardingley	1/4½	1/0½
Arundel	1/4	1/0
Ascot	1/4½	1/0½
Ashby-de-la-Zouch	1/5	1/0½
Ashford (Kent)	1/3½	11½
Ashford (Middlesex)	1/5½	1/1½
Ashington	1/6	1/1½
Ashstead	1/5	1/0½
Ashton-under-Lyme	1/6½	1/2
Aylesbury	1/4	1/0
Aylsham	1/3½	11½
Bagshot	1/3½	11½
Banbury	1/4	1/0
Barnsley	1/6½	1/2
Barnstaple	1/4½	1/0½
Barrow-in-Furness	1/6½	1/2
Barry	1/6½	1/2
Basingstoke	1/4	1/0
Bath	1/5½	1/1½
Batley	1/6½	1/2
Beaconsfield	1/4½	1/0½
Beccles	1/3	11½
Bedford	1/5½	1/1½
Berkhamsted	1/4	1/-
Berwick	1/5½	1/1½
Beverley	1/6½	1/2
Bexhill-on-Sea	1/4½	1/0½
Bideford	1/4½	1/0½
Biggleswade	1/4	1/-
Billericay	1/4	1/-
Birchington	1/4	1/-
Birkenhead	1/8‡	1/3½
Birmingham	1/6½	1/2
Bishop Auckland	1/6	1/1½
Bishops Stortford	1/5	1/0½
Blackburn	1/6½	1/2
Blackpool	1/6½	1/2
Blyth	1/6½	1/2
Bognor Regis	1/4	1/-
Bolton	1/6½	1/2
Bournemouth	1/5½	1/1½
Bracknell	1/4	1/-
Bradford	1/6½	1/2
Bradford-on-Avon	1/3½*	11½
Braintree	1/4½	1/0½
Brentwood	1/6	1/1½
Bridgwater	1/4½	1/0½
Bridlington	1/6	1/1½
Brighouse	1/6½	1/2
Brighton	1/5½	1/1½
Bristol	1/6½	1/2
Broadstairs	1/4	1/-
Bromsgrove	1/5½	1/1½
Buckley	1/6½	1/2
Bungay	1/2½	11
Burnham-on-Crouch	1/3	11½
Burnley	1/6½	1/2
Burslem	1/6½	1/2
Burton-on-Trent	1/6½	1/2
Bury	1/6½	1/2
Bury St. Edmunds	1/4	1/-
Buxton	1/6	1/1½
Byfleet	1/4½	1/0½
Cambridge	1/6	1/1½
Canterbury	1/4	1/-
Cardiff	1/6½	1/2
Carlisle	1/6½	1/2
Carnforth	1/6½	1/2
Castleford	1/6½	1/2
Caterham	1/5	1/0½
Chard	1/3½*	11½
Chatham	1/5	1/0½
Chelmsford	1/5	1/0½
Cheltenham	1/5	1/0½
Chepstow	1/5½	1/1½
Chertsey	1/5	1/0½
Chester	1/6½	1/2
Chesterfield	1/6½	1/2
Chichester	1/4	1/-
Chorley	1/6½	1/2
Cirencester	1/4*	1/-
Clacton	1/4½	1/0½
Cleveleys	1/6½	1/2
Clitheroe	1/6½	1/2
Cobham	1/5	1/0½
Colchester	1/5½	1/1½
Colwyn Bay	1/5½	1/1½
Congleton	1/6	1/1½
Coventry	1/6½	1/2
Cranbrook	1/3	11½
Cranleigh	1/3½	11½
Crawley	1/4½	1/0½
Crewe	1/5½	1/1½
Cromer	1/3½	11½
Crowborough	1/4½	1/0½
Cuckfield	1/4½	1/0½
Darlington	1/6½	1/2
Darwen	1/6½	1/2
Daventry	1/5	1/0½
Deal	1/4	1/-
Denbigh	1/5	1/0½
Derby	1/6½	1/2
Devizes	1/3*	11½
Dewsbury	1/6½	1/2
Didcot	1/4½	1/0½
Diss	1/3	11½
Doncaster	1/6½	1/2
Dorchester	1/4*	1/-
Dorking	1/4½	1/0½
Dover	1/4	1/-
Dovercourt	1/4½	1/0½
Driffield	1/5	1/0½
Droitwich	1/5½	1/1½
Dudley	1/6½	1/2
Dunstable	1/4½	1/0½
Durham City	1/6½	1/2
Eastbourne	1/5½	1/1½
E.Glam.(Mon.Val.)	1/6	1/1½
East Grinstead	1/4½	1/0½
Edenbridge	1/4½	1/0½
Ely	1/3	11½
Epping	1/6½	1/2
Exeter	1/5½†	1/1½
Exmouth	1/4½	1/0½
Fakenham	1/3	11½
Falmouth	1/5	1/0½
Fareham	1/4	1/-
Faversham	1/3½	11½
Felixstowe	1/5	1/0½
Filey	1/5	1/0½
Fleetwood	1/6½	1/2
Flint	1/6	1/1½
Folkestone	1/4	1/-
Frinton-on-Sea	1/4½	1/0½
Frome	1/3½*	11½
Gainsborough	1/5½	1/1½
Gateshead	1/6½	1/2
Gillingham	1/5	1/0½
Glossop	1/6½	1/2
Gloucester	1/5½†	1/1½
Godalming	1/4½	1/0½
Goole	1/6½	1/2
Gosport	1/5½	1/1½
Grantham	1/5	1/0½
Gravesend	1/6	1/1½
Gt. Yarmouth	1/4½	1/0½
Grimsby	1/6½	1/2
Guildford	1/4½	1/0½
Guilsborough	1/5	1/0½
Halifax	1/6½	1/2
Hanley	1/6½	1/2
Harpenden	1/5	1/0½
Harrogate	1/6½	1/2
Hartlepools	1/6½	1/2
Harwich	1/4½	1/0½
Haslemere	1/3½	11½
Hastings	1/4	1/0
Hatfield	1/5½	1/1½
Haywards Heath	1/4½	1/0½
Hednesford	1/6	1/1½
Hemel Hempstead	1/5½	1/1½
Henley	1/4½	1/0½
Hereford	1/4½*	1/0½
Herne Bay	1/4	1/0
Hertford	1/5½	1/1½
Heysham	1/6½	1/2
Hitchin	1/5	1/0½
Hoddesdon	1/5½	1/1½
Holt	1/2½	11
Horley	1/4	1/-
Horsham	1/4	1/-
Horwich	1/6½	1/2
Huddersfield	1/6½	1/2
Hull	1/6½	1/2
Hunstanton	1/3	11½
Huntingdon	1/3½	11½
Ilfracombe	1/4½	1/0½
Ingatestone	1/4½	1/0½
Ipswich	1/5½	1/1½
Isle of Thanet	1/4	1/-
Isle of Wight	1/3½	11½
Keighley	1/6½	1/2
Kenilworth	1/6½	1/2
Kettering	1/6	1/1½
Kidderminster	1/5½	1/1½
King's Lynn	1/4	1/-
Kirkham	1/6½	1/2
Knowle	1/6	1/1½
Lancaster	1/6½	1/2
Leamington	1/6	1/1½
Leatherhead	1/5½	1/1½
Leeds	1/6½	1/2
Leicester	1/6½	1/2
Leighton Buzzard	1/3½	11½
Letchworth	1/5	1/0½
Lewes	1/3	11½
Lichfield	1/5½	1/1½
Lincoln	1/6½	1/2
Littlehampton	1/4	1/-
Liverpool	1/8‡	1/3½
Llandudno	1/5½	1/1½
Llanelly	1/6½	1/2
London:		
12 m. radius	1/8*	1/3
12-15 m. radius	1/7½*	1/2½
Long Eaton	1/6½	1/2
Longton	1/6½	1/2
Loughborough	1/6½	1/2
Louth	1/5	1/0½
Lowestoft	1/4½	1/0½
Luton	1/6	1/1½
Macclesfield	1/6	1/1½
Maidenhead	1/5	1/0½
Maidstone	1/5	1/0½
Malvern	1/5	1/0½
Manchester	1/6½	1/2
Manningtree	1/3	11½
Mansfield	1/6½	1/2
March	1/3½	11½
Margate	1/4	1/-
Market Harborough	1/5½	1/1½
Matlock	1/5	1/0½
Melton-Constable	1/2½	11
Melton Mowbray	1/5½	1/1½
Merthyr Tydfil	1/6	1/1½
Middlesbrough	1/6½	1/2
Middleton	1/6½	1/2
Middlewich	1/5½	1/1½
Milford Haven	1/4½	1/0½
Morecambe	1/6½	1/2
Morley	1/6½	1/2
Mundesley	1/3½	11½
Nantwich	1/5½	1/1½
Newark-on-Trent	1/5½	1/1½
Newbury	1/4	1/-
Newcastle-on-Tyne	1/6½	1/2
Newcastle-u-Lyme	1/6½	1/2
New Forest	1/3½	11½
Newmarket	1/4½	1/0½
Newport, Mon.	1/6½	1/2
Newport Pagnell	1/3½	11½
Northampton	1/6½	1/2
Norwich	1/6	1/1½
Nottingham	1/6½	1/2
Nuneaton	1/6½	1/2
Oakham	1/5	1/0½
Oldham	1/6½	1/2
Ormskirk	1/6½	1/2
Oxford	1/6	1/1½
Oxted	1/3½	11½
Paignton	1/6	1/1½
Peterborough	1/6	1/1½
Plymouth	1/6½†	1/2
Pontypridd	1/6	1/1½
Portsmouth	1/5½	1/1½
Port Talbot	1/6½	1/2
Preston	1/6½	1/2
Pulborough	1/3	11½
Ramsgate	1/4	1/-
Reading	1/5½	1/1½
Redditch	1/5½	1/1½
Redhill	1/4½	1/0½
Reigate	1/4½	1/0½
Retford	1/5	1/0½
Rickmansworth	1/6	1/1½
Ripon	1/5	1/0½
Rochdale	1/6½	1/2
Rochester	1/5	1/0½
Rugby	1/6½	1/2
Saffron Walden	1/3	11½
St. Albans	1/6	1/1½
St. Helens	1/6½	1/2
St. Neots	1/3½	11½
Salisbury City	1/3½*	11½
Salisbury Plain	1/3½*	11½
Sawbridgeworth	1/4½	1/0½
Saxmundham	1/2½	11
Scarborough	1/6	1/1½
Selby	1/6½	1/2
Sevenoaks	1/5	1/0½
Sheerness	1/4	1/-
Sheffield	1/6½	1/2
Shipley	1/6½	1/2
Shoeburyness	1/6	1/1½
Shoreham	1/5	1/0½
Shrewsbury	1/5½	1/1½
Sittingbourne	1/3½	11½
Skegness	1/5½	1/1½
Sleaford	1/5	1/0½
Slough	1/5½	1/1½
Southampton	1/5½	1/1½
Southend-on-Sea	1/6	1/1½
Southport	1/6½	1/2
South Shields	1/6½	1/2
Spalding	1/4	1/-
Stafford	1/6	1/1½
Staines	1/5½	1/1½
Stamford	1/5	1/0½
Stevenage	1/5	1/0½
Stockport	1/6½	1/2
Stockton-on-Tees	1/6½	1/2
Stoke-on-Trent	1/6½	1/2
Stourbridge	1/6	1/1½
Stourport	1/5½	1/1½
Stowmarket	1/3	11½
Stratford-on-Avon	1/5	1/0½
Stroud	1/5†	1/0½
Sunderland	1/6½	1/2
Sutton Coldfield	1/6½	1/2
Swaffham	1/2½	11
Swanage	1/4½*	1/0½
Swansea	1/6½	1/2
Swindon	1/5*	1/0½
Tamworth	1/6	1/1½
Taunton	1/4½	1/0½
Tenterden	1/3½	11½
Tewkesbury	1/5*	1/0½
Thetford	1/3	11½
Thorpe Bay	1/6	1/1½
Todmorden	1/6½	1/2
Tonbridge	1/5	1/0½
Torquay	1/6	1/1½
Totnes	1/4½†	1/0½
Trowbridge	1/3½*	11½
Truro	1/3½	11½
Tunbridge Wells	1/5	1/0½
Uppingham	1/5	1/0½
Uttoxeter	1/5	1/0½
Wakefield	1/6½	1/2
Walsall	1/6½	1/2
Walsden	1/6½	1/2
Walton-on-Naze	1/4½	1/0½
Ware	1/5½	1/1½
Warminster	1/3½*	11½
Warrington	1/6½	1/2
Warwick	1/6	1/1½
Wellingborough	1/6	1/1½
Wells (Norfolk)	1/2½	11
Welwyn	1/5½	1/1½
Welwyn Gar. City	1/6½	1/2
West Bromwich	1/6½	1/2
Westcliff-on-Sea	1/6	1/1½
Weston-super-Mare	1/5½	1/1½
Weybridge	1/5	1/0½
Weymouth	1/4*	1/-
Whitby	1/5½	1/1½
Whitstable	1/4	1/-
Widnes	1/6½	1/2
Wigan	1/6½	1/2
Wigton	1/5	1/0½
Willington	1/6	1/1½
Wilmslow	1/6½	1/2
Winchester	1/4½	1/0½
Windermere	1/5	1/0½
Windsor	1/5½	1/1½
Wisbech	1/3½	11½
Witham	1/4½	1/0½
Woking	1/4½	1/0½
Wokingham	1/4½	1/0½
Wolverhampton	1/6½	1/2
Woodbridge	1/3½	11½
Worcester	1/5½	1/1½
Workington	1/5	1/0½
Worksop	1/5½	1/1½
Worthing	1/4	1/-
Wrexham	1/6	1/1½
Wroxham	1/4	1/-
Wycombe	1/5	1/0½
Wymondham	1/3	11½
Yeovil	1/4½*	1/0½
York	1/6½	1/2

* Painters 1d. less than other Craftsmen. † Painters ½d. less than other Craftsmen. ‡ Plasterers 1/9.

For Building Trade Wages in Scotland see page 810.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender, unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

OCTOBER 26.

Abertillery.—Mortuary.—And post-mortem room at public cemetery at Aberbeeg, for U.D.C. D. R. Davies, clerk, Council Offices. Dep. £5.

Bournemouth. — Erection.—Of secondary school for boys at East Way, for C.B. B.E. Dep. £3 3s.

Church Stretton.—Improvement.—To conveniences at the Market Hall, for U.D.C. E. J. Marsh, S. Dep. £1.

Conway.—Alterations.—At old hospital buildings, Dolwaen institution, for Caernarvonshire C.C. County Architect, County Offices, Caernarvon.

Derby. — Erection. — Of additional classrooms, etc., at Boulton school, Alvaston, for E.C. C. H. Aslin, F.R.I.B.A. Dep. £1 1s.

Derby.—Additional Classrooms.—And assembly hall at Allenton junior school, for E.C. C. H. Aslin, F.R.I.B.A. Dep. £1 1s.

Durham. — Erection.—Of gymnasium at "Elmside," Etherley-ln., Bishop Auckland, for C.C. F. Willey, F.R.I.B.A., 34, Old Elvet.

Dutton.—Extension.—To nurses' home at institution, for Chester C.C. F. A. Browne, County Architect, The Castle, Chester. Dep. £1 1s.

Edinburgh.—Houses.—650, at Craigmillar housing area, for T.C. E. J. MacRae, F.R.I.B.A., City Architect.

Edinburgh.—Alterations.—To heating installation in children's wards and porter's room at Western General Hospital, Crewe-rd., for T.C. E. J. Macrae, F.R.I.B.A., City Architect.

Ely.—Convenience.—At Littleport, for R.D.C. H. L. Mullett, L.R.I.B.A., 40, Regent-st., Cambridge.

Grange.—Protection.—And repair work to promenade sea wall at Grange-over-Sands, also excavation and refilling of trenches for water mains between Nether Newton and Grange, for U.D.C. S.

Great Yarmouth.—Houses.—30, at Lawn-ave., for T.C. B.E. Dep. £2 2s.

Great Yarmouth.—Annexe.—To Town Hall, Hall Plain, for T.C. Olley & Haward, architects, 2, Queen-st. Dep. £2 2s.

Hatton.—Houses.—2, in Goose-la., for Runcorn R.D.C. J. O. Hunter, Castle-pk., Frodsham, via Warrington.

Ilford. — Erection. — Of branch public library at Gantshill Cross, for B.C. B.E. Dep. £3 3s.

Kerrier.—Houses.—22, at various sites, for R.D.C. F. Jackett, S., 5, Cross-st., Helston.

Leeds.—Erection.—Of 1,592 houses and cottage flats, also formation and pitching of roads, at Seacroft housing estate (Parkland), for T.C. R. A. H. Livett, A.R.I.B.A., Housing Director, 26, Great George-st. Dep. £10.

Leeds.—Wiring.—Of houses on Gipton housing estate, for T.C. R. A. H. Livett, A.R.I.B.A., Housing Director, 26, Great George-st. Dep. £2.

Leeds.—Painting Works.—At various houses, on Gipton housing estate area No. 4, for T.C. R. A. H. Livett, A.R.I.B.A., Housing Director, 26, Great George-st. Dep. £2.

Littleport.—Convenience.—For B.C. H. L. Mullett, L.R.I.B.A., 40, Regent-st., Cambridge.

London.—Pithead Baths.—At Blidworth, nr. Mansfield, Notts; Ansley Hall, nr. Nuneaton, Warwick; and Albion, Cilfynydd, nr. Pontypridd, Glam., Collieries, for Miners' Welfare Committee. Secretary, Romney House, Marsham-st., Westminster, S.W.1.

London.—Erection.—Of pavilion on Lyttelton playing fields, for Finchley B.C. B.E. and S. Dep. £5.

Newcastle-upon-Tyne. — Children's Block. — At general hospital, for T.C. City Architect, 18, Cloth-market. Dep. £2 2s.

Newcastle-upon-Tyne. — Interior Painting. — To Byker baths and washhouses, Shipley-st., for T.C. City Estate and Property S.

Poole.—Houses.—4, at Nile Row, for B.C. C.E. and S. Dep. £1 1s.

Ruislip-Northwood. — Lay-out. — Of recreation ground off Lime-gr., Eastcote; erection of caretaker's lodge, conveniences, brick walling and entrance gates, tennis pavilion, also erection of greenkeeper's lodge, Haste Hill golf course, off Chestnut-av., Northwood, for U.D.C. H. R. Metcalfe, E. and S. Dep. £5.

Runcorn.—Erection.—Of wood-framed pavilion at Castle-pk., Frodsham, for R.D.C. J. O. Hunter, E., Castle-pk., Frodsham, nr. Warrington. Dep. £1 1s.

Stourbridge.—Houses.—90, and 10 bungalows on Hodge Hill Farm estate, Wollescote, together with construction of streets with foul and storm-water sewers and appurtenant works, for T.C. Fredk. Woodward, B.E. and S. Dep. £3 3s.

Sunderland.—Conversion.—Of part of existing baths and washhouses at Hendon-rd. into public swimming bath, for C.B. B.E. Dep. £2 2s.

West Ham.—Internal Painting.—And repairs at 3 schools, for C.B. John H. Jacques, F.R.I.B.A., 61, West Ham Lane, E.15. Dep. £1.

Yorkshire.—Works.—At Castleford—school and caretaker's house; Conisborough—alterations and improvements to Station-rd. school; Oakworth—installation of low pressure hot water apparatus and electric lighting at Oakworth junior mixed and infants' school; Rawmarsh—alterations and erection of extensions at Rawmarsh senior council school; Wickersley—installation of low pressure hot water apparatus at Wickersley new junior and infants' school, for West Riding C.C. Education Officer, County Hall, Wakefield.

OCTOBER 27.

Bexley.—Renovation.—Decoration and repair of "Mill House," Bourne-rd., for U.D.C. G. A. Joy, S., Council Offices, Bex'eyheath.

Birmingham.—External Painting.—Of Victoria Law Courts, for T.C. Herbert J. Manzoni, City E. and S. Dep. £1 1s.

***Birmingham.**—Erection.—Of 242 houses and 24 maisonnettes on Kettlehouse Farm estate, for T.C. City E. and S. Dep. £3 3s.

Brigg.—Houses.—64, and 16 bungalows on Newlands estate, for U.D.C. N. D. Preston, Council Offices. Dep. £2 2s.

Crook.—Repainting.—Of 114 houses at West End Villas, and 114 houses at South End Villas, for U.D.C. Wm. G. Omand, clerk.

Frazerburgh.—Houses.—22, in connection with School-st. reconstruction, for T.C. W. F. Hamilton, B.S. Dep. £1.

Hebden Bridge.—Houses.—12 scullery and 4 bungalows, also street and sewer work at Palace House-rd., for U.D.C. H. L. Bottomley, E. and S. Dep. £1.

Lancashire.—Schools.—(a) Leyland junior mixed Council school, nr. Preston; (b) Worsley Hulton Wharton junior and infants' school; and (c) new hostels and principal's house at County Council Farm, Hutton, nr. Preston, for C.C. Stephen Wilkinson, F.R.I.B.A., County Offices, Preston. Dep. £2 each.

Newcastle-upon-Tyne. — Offices. — At Wingrove depot, for T.C. City Architect, 18, Cloth-market. Dep. £1 1s.

***Plymouth.**—Repairs.—And decorations at 7, Bedford-ter., Plymouth; painting, etc., St. Budeaux and North Prospect branch libraries; renewal of lead flat to Stonehouse Town Hall; also observation block at Swilly Hospital, for T.C. City Architect, Rowe-st. Dep. £2 2s.

Rochford.—Houses.—6, in Paglesham, for R.D.C. A. C. Madge, S. Dep. £1 1s

Trim.—Repairs.—To heating system at County Home, for Meath County Board of Health and Public Assistance. E. J. Duffy, C.E., County Hospital, Navan.

Walsall.—Erection.—Of 2 five-bedroom, 12 4-bedroom and 103 3-bedroom type houses on Harden North housing site (Section 1), for T.C. B.S. Dep. £3 3s.

FEDERATED EMPLOYERS

Insurance Association Ltd.

(non-tariff)

Head Office:

8 King St., Manchester

All Classes of Insurance Transacted.

(Except Life and Marine)

The Leading Office for

Contract Guarantee Bonds

Watford.—Erection.—Of engineering garage, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Wellingborough.—Convenience.—At Castle Fields recreation ground, for U.D.C. R. Stevenson Henshaw, E. Dep. £1 1s.

OCTOBER 28.

Buxton.—Erection.—Of police house, Fairfield, and police house, Burbage, for Derbyshire Standing Joint Committee. County Architect, County Offices, Derby. Dep. £2 2s.

Chesterfield.—Repairs.—And other works at 21, 23, 25 and 27, New-st., Grassmoor, for R.D.C. T. W. Binns, 30, Gluman Gate.

Chorley.—Baths.—For T.C. P. Howard, architect, 88, Mosley-st., Manchester. Dep. £1.

Darlington.—Cubicle Block.—Adjoining east side of infectious diseases hospital, for T.C. B.S. Dep. £1 1s.

Deben.—Houses.—8, at Monewden; 10, at Kirton; and 4, at Bromeswell, for R.D.C. W. Rainey-Edwards, clerk, Council Offices, Melton Hill, Woodbridge. Dep. £2 2s.

Dewsbury.—Extensions.—To Moorlands Maternity Home, Moorlands-rd., for T.C. Borough Architect and Buildings Surveyor. Dep. £3 3s.

Dunloy.—School.—For Rev. J. Boyle, P.P. M'Carthy & Lilburn, surveyors, Scottish Provident-bldgs., Belfast. Dep. £3 3s.

Fulham.—Demolition.—Of "St. James Home" in Fulham Palace-rd., for B.C. B.E.

Kendal.—Outside Painting.—At Parkside and Castle-st. cemeteries, for T.C. George Jackson.

Larne. — Improvement. — Of Market-yard, for U.D.C. T.S.

Newcastle-upon-Tyne. — Re-drainage. — Of City Hospital for Infectious Diseases, Walkergate, for T.C. City Estate and Property S.

Portsmouth.—Bungalow.—At St. Mary's Institution, for T.C. City Architect. Dep. £1 1s.

***Purfleet.**—Erection.—Of 6 police houses, for Essex C.C. J. Stuart, F.R.I.B.A., Chelmsford. Dep. £1 1s.

Redcar.—Erection.—Of gas showrooms, etc., for T.C. B.E. and S. Dep. £2.

Willerby.—School.—At Carr-la., for East Riding E.C. County Architect, County Hall, Beverley. Dep. £3 3s.

Worthing.—Houses.—Four blocks, type A, off Albert-rd., Rustington, for R.D.C. S. Dep. £2 2s.

OCTOBER 29.

Birmingham.—Erection.—Of nurses' and maids' home at Yardley Green-rd. Sanatorium, for T.C. F. H. C. Wiltshire, T.C. Dep. £2 2s.

Cannock.—Houses.—6, at School-ln., Coven, for R.D.C. S. R. Biggs, S.

Omagh.—School.—At Envagh, Leglands, for Rev. J. M'Bride, C.C. M'Carthy & Lilburn, quantity surveyors, 1, Shipquay-pl., Derry. Dep. £2 2s.

Swanage.—Erection.—Of 6 houses in Steer-rd., for U.D.C. Surveyor.

OCTOBER 30.

Aberdeen.—External.—And internal painting at head post office, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh. Dep. 10s.

Atcham.—Erection.—Of two houses at Pontesbury Hill, for R.D.C. S., 24, St. John's-hill, Shrewsbury.

Boston.—Houses.—In Swineshead, for R.D.C. W. R. Beardall, architect. Dep. £2 2s.

Cambridge.—Erection.—Of 32 houses at Fulborn-rd., Cherry Hinton, for T.C. Dep. £2 2s.

Hexham.—Outside Painting.—Of 40 flats and 14 houses at Chareway-ln., and 90 houses at Roundclose, for U.D.C. W. G. Landale, S., Hexham House.

Leyton.—Alterations.—To High-rd. frontage of electricity sub-station, Capworth-st., for B.C. B.E. and S., Town Hall, Leyton, E.10. Dep. £2.

St. Helens. — Erection. — Of gymnasia: (1) Robins-ln. Council school, and (2) Rivington-rd. Council school, for E.C. Biram & Fletcher, FF.R.I.B.A., 17, George-st. Dep. £2 2s. each.

Sidelsham.—Extensions.—To Council school, for West Sussex C.C. C. G. Stillman, F.R.I.B.A., Chichester. Dep. £2 2s.

Sunderland.—Erection.—Of (*a*) reception block, sick hospital and nurses' home, and (*b*) boiler house, outbuildings and site works at Borough Mental Hospital, Ryhope, for C.B. W. & T. R. Milburn, FF.R.I.B.A., 17, Fawcett-st. Dep. £2 2s.

***Warwick.**—Erection.—Of junior and infants' school at Rugby Hillmorton Paddox, for C.C. County Architect. Dep. £2 2s.

OCTOBER 31.

Alton.—Erection.—Of 5 houses in Church-st. and 12 bungalows on Anstey estate, fences and gates, for U.D.C. S. Dep. £1 1s.

Bradford.—Mason.—And joiner's work and constructional steelwork, etc., required in erection of omnibus garage, Moss-st. and Castle-st., for T.C. City Architect.

Chester.—Buffet.—And shop at Upton Mental Hospital, for C.C. F. A. Browne, County Architect, The Castle, Chester. Dep. £1 1s.

Knockaholiet.—Alterations.—To school, for North Antrim Regional E.C. J. Pettigrew, secretary.

Nantwich.—Dining Hall.—At institution, for Chester C.C. F. A. Browne, County Architect, The Castle, Chester.

Northallerton.—Painting.—Of grammar school, for Governors. Joseph Hunt, clerk, The Old Post Office.

Nr. Lincoln.—Erection.—Of two additional villas at Mentally Defective Colony, Harmston Hall, for Joint Board. Philip W. Birkett, A.R.I.B.A., architect, County Offices, Newland, Lincoln. Dep. £2 2s.

Otley.—Wiring.—Of 205 houses on Newall Garden Suburb estate, for U.D.C. C. F. Hodgson, S.

Spalding.—Conveniences.—In West-st., Crowland. F. Bernerd Saunders, 8, Herring-ln.

Stone.—Houses.—4, at Old-rd., also 1 pair at each end of York-st., for U.D.C. G. S. Challacombe, S. Dep. £2.

NOVEMBER 2.

Ballymacricket, Glenavy.—School.—For Rev. D. M'Evoy, P.P. M'Carthy & Lilburn, surveyors, Scottish Provident-bldgs., Belfast. Dep. £3 3s.

Bollington.—Construction.—Of combined conveniences and shelter at Turner's Arms, for U.D.C. C. A. Smith, E. and S. Dep. £2 2s.

Chesterton.—Cottages.—36, at Dry Drayton, Elsley, Fulbourn, Impington, Oakington and Swavesey, for R.D.C. J. R. Oxenham, architect, the County Hall, Dobson-st., Cambridge. Dep. £2 2s.

Collooney.—Houses.—30, at Collooney, for Sligo County Board of Health. N. O'Dwyer, Consulting E. Dep. £5 5s.

Comrie.—Houses.—40, for Fife C.C. W. Williamson & Hubbard, Royal Bank-bldgs., Kirkcaldy. Dep. £1.

Dewsbury.—Wiring.—Of 94 houses at Earlsheaton, for T.C. B. Electrical E.

***Gateshead.**—Installation.—Of hot water and power plant at mental hospital, Stannington, for C.B. B.E. Dep. £5 5s.

Golborne.—Houses.—36, in Golborne; 50, in Lowton; and 20, in Culcheth, for U.D.C. A. Clough, S. Dep. £2 2s.

Hatton.—Conversion.—Of 250 privies to water-carriage system, for U.D.C. Sanitary Inspector, Council-chams., Hatton-le-Hole.

Keighley.—Pavilion.—At Utley, for T.C. E. G. Felgate, A.R.I.B.A., Borough Architect. Dep. £1 1s.

London.—Internal Painting.—And cleaning at Faraday-bldgs. (South), for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, S.W.1. Dep. £1.

Sevenoaks.—Houses.—80, construction of roads, laying of sewers, installation of electricity, fencing and erection of 80 sheds and concrete floors in various parishes, for R.D.C. C. R. Lynam, S. Dep. £2 2s.

Sittingbourne and Milton.—Construction.—Of pumping station and water softening building and other works incidental thereto, adjoining Highsted Waterworks Pumping Station, Sittingbourne, for U.D.C. A. P. I. Cotterell & Son, 54, Victoria-st., Westminster, S.W.1. Dep. £3 3s.

Solihull.—External Painting.—Of number of houses in various parts of district, for U.D.C. A. H. Chard, Chief Sanitary Inspector, Warwick-bldgs., Warwick-rd.

Southampton.—Houses.—48, on Redbridge Hill site, for C.B. B.E. Dep. £3 3s.

Stockton-on-Tees.—Hall.—In Appleton-rd., for T.C. George P. Stainsby, A.R.I.B.A., 25, High-st. Dep. £2 2s.

Sunbury-on-Thames.—Pavilion.—And shelter at Littleton recreation ground, Laleham-rd. Shepperton, for U.D.C. A. J. Buttress, E. and S. Dep. £1 1s.

Sutton Coldfield.—Extensions.—To Town Hall, for T.C. B.S. Dep. £2 2s.

***Trowbridge.**—Sub-structure.—Of new County Offices, for Wilts C.C. Clerk. Dep. £2 2s.

Worthing.—Additions.—And alterations to and redrainage and redecoration of lodge at Lancing Manor, for R.D.C. S. Dep. £1 1s.

NOVEMBER 3.

Arnold, Notts.—Erection.—Of Employment Exchange, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Boston Spa, Yorks. — Erection. — Of telephone exchange and garage, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Camelford.—Alterations.—And additions to 3 cottages at St. Teath and Delabole, for R.D.C. A. R. Hansford, Building S.

Gosforth.—Houses.—12, two-roomed, on Hollywood-av. housing estate, for U.D.C. Clifford Wyld, E. and S. Dep. £2 2s.

Llwchwr.—Conveniences.—At Coedbach-rd., Pontardulais, Kingsbridge and Grovesend, for U.D.C. F. T. James, E. and S., Council Offices, West-st., Gorseinon. Dep. £1 1s.

Wenlock.—Convenience.—At Broseley, for T.C. Sanitary Inspector, C. J. Thomas, 38, Church-st., Broseley.

NOVEMBER 4.

***Chadderton.** — Various Trades. — In connection with erection of Mills-hill Council school, for U.D.C. Taylor & Simister, architects, Halifax-chambs., Oldham. Dep. £3 3s.

Coleford, Glos.—Erection.—Of Employment Exchange, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Gateshead-on-Tyne.—Factories.—On Team Valley estate, for North-Eastern Trading Estates, Ltd. R. M. Percival, secretary, Metrovick House, Northumberland-rd., Newcastle-on-Tyne, 1. Dep. £2 2s.

Kingston-upon-Hull.—Electrical Installation.—At Colony for Care of Mentally Defective, Winestead, for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £1 1s.

London.—Erection.—Of laboratories, etc., at New River Head site, for Metropolitan Water Board. Clerk of the Board, 173, Rosebery-av., E.C.1. Dep. £10.

Reigate. — Demolition. — Of existing dressing cubicles, etc., and erection of 40 dressing cubicles, screens, etc., at swimming baths, for B.C. George G. Sanderson, B.E. and S. Dep. £1 1s.

Sheffield.—Erection.—Of Beck-rd. junior school and caretaker's house, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

Shourstrade, Adare.—School.—Patrick J. Thornhill, Adare, Co. Limerick.

Stanley.—Houses.—63, at Stanley and South Moor, for U.D.C. A. Routledge, S. Dep. £2 2s.

NOVEMBER 5.

Liskeard.—Houses.—18, for R.D.C. E. C. Higman, L.R.I.B.A., Barras-st.

Liverpool. — Alterations. — At exchange branch post office, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

***Newbiggin-by-the-Sea.**—Erection.—Of 90 houses and 16 aged persons' bungalows, for U.D.C. S. Dep. £2 2s.

New Forest.—Dwellings.—28, and roads and sewers, etc., Water-la., Totton, for R.D.C. A. F. Read, Housing Surveyor. Dep. £1 1s.

***Northampton.** — Alterations. — And additional classroom to Yardley Hastings' school, for C.C. Secretary for Education.

Stourbridge.—Houses.—90 non-parlour, and 10 non-parlour bungalows on Hodge Hill Farm estate, Wollescote, together with construction of streets with foul and storm water sewers and appurtenant works, for T.C. Fredk. Woodward, M.Inst.M. & Cy.E., Borough Electrical Engineer and Surveyor, The Council House, Stourbridge. Dep. £3 3s. each contract.

Tannaghmore, Lurgan.—Additions.—And alterations to school, for Rt. Rev. Monsignor O'Hagan. McCarthy & Lilburn, surveyors, Scottish Provident-bldgs., Belfast. Dep. £3 3s.

NOVEMBER 6.

Athlone.—Public Offices.—For Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1.

Doncaster.—Houses.—24, at Brocco Bank, Norton; 12, at Ashton-ln., Braithwell; and 4, at Whiphill Top-ln., Branton, for R.D.C. S.

***Ramsgate.**—Erection.—Of 87 houses at Dumpton, for T.C. B.E. Dep. £3 3s.

Shipley.—Convenience.—At Fountain-st., Windhill, for U.D.C. H. Dawson, S. and Architect.

NOVEMBER 7.

Buxton.—Extensions.—At Playhouse, St. John's-rd., for T.C. F. Langley, L.R.I.B.A., B.E. Dep. £3 3s.

NOVEMBER 9.

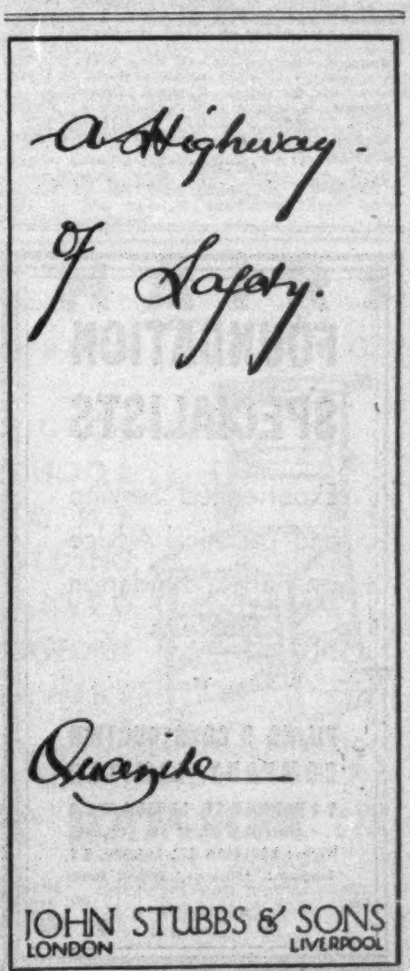
Grange-over-Sands (Lancs).—Erection.—Of post office, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

***Lymington.** — Houses. — 22, at Pennington, Everton and Ashley, for B.C. B.E. Dep. £2 2s.

***Mortlake.**—Erection.—Of block of 146 flats at Lower Richmond-rd., S.W.14, for Borough of Barnes. B.E. and S. Dep. £5 5s.

Newcastle-upon-Tyne.—Clinic.—At General Hospital, for T.C. City Architect, 18, Cloth-market. Dep. £1 1s.

Sheffield.—Building.—And civil engineering work for extension to Blackburn Meadows generating station, for T.C. John R. Struthers, General Manager and E., Commercial-st. Dep. £3 3s.



NOVEMBER 10.

***Durham.**—Erection.—Of School of Agriculture at Houghall, for C.C. W. Carter, A.R.I.B.A. Dep. £2 2s.

Easington.—Conveniences.—Near King's Head, for R.D.C. S.

Godstone.—Housing.—90 houses, in pairs or blocks of 5, at Coldshott, Hurst Green, Oxted, including fences, drainage, paths, etc., complete, for R.D.C. S. Easter, E. and S. Dep. £2 2s.

***Grantham.**—Erection.—Of nursery home and school in Dysart-rd., for Kesteven C.C. C. B. Metcalfe, F.R.I.B.A., Sleaford.

Margate.—Lavatories.—At Minnis Bay, Birchington, and St. Mildred's Bay, Westgate-on-Sea, for T.C. E. A. Borg, B.E. and S., 40, Grosvenor-pl. Dep. £1 1s. each contract.

Oxted.—Erection.—Of 90 houses at Coldshott, Hurst Green, for R.D.C. of Godstone. E. and S. Dep. £2 2s.

Ystradgynlais.—Houses.—18, and appurtenant works at rear of Brecon-rd., for R.D.C. W. Edgar Evans, E. and S. Dep. £2.

NOVEMBER 11.

***Hendon.**—Erection.—Of maternity and child welfare centre and school clinic, Hartley-av., Mill Hill, for B.C. B.E. and S. Dep. £3 3s.

***Kidsgrove, Staffs.**—Erection.—Of employment exchange, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

NOVEMBER 12.

***Barton-on-Humber.**—Erection.—Of telephone exchange and alterations and additions to garage, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

***Derby.**—Erection.—Of 15 houses in Uttoxeter-rd., for C.B. C. H. Aslin, F.R.I.B.A. Dep. £1 1s.

***Derby.**—Erection.—Of 130 houses on Rec Farm estate, for C.B. C. H. Aslin, F.R.I.B.A. Dep. £1 1s.

London.—Reconstruction.—Of underground public convenience at Tottenham Court-rd., for St. Pancras B.C. B.E. and S. Dep. £2 2s.

***London.**—Erection.—Of shop and caretaker's store on ground floor, and four working-class flats above in Johnson-st., Somers Town, for St. Pancras B.C. T.C. Dep. £2 2s.

***Shefford.**—Erection.—Of senior school and alterations to existing junior school, for Bedfordshire C.C. C.S. Dep. £1 1s.

NOVEMBER 13.

***London.** — Erection. — Of Dollis Hill P.O. Engineering Research Station, Main Radio Block, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, S.W.1. Dep. £1.

NOVEMBER 14.

***Chislehurst.**—Erection.—Of 10 houses, for Chislehurst and Sidcup U.D.C. Ley Colbeck & Partners, architects, 214, Bishopsgate, London, E.C.2. Dep. £2 2s.

***Whitehaven.**—Erection.—Of junior and infants' school at Kells, for T.C. B.E. Dep. £3 3s.

NOVEMBER 16.

***London.**—Erection.—Of Clerkenwell telephone exchange extension, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, S.W.1. Dep £1.

***Thornaby-on-Tees.**—Erection.—Of public swimming baths in Thornaby-rd. B.E. Dep. £5 5s.

NOVEMBER 19.

***Richmond (Surrey).**—Erection.—Of 28 flats at Crofton-ter. clearance area, Lower Mortlake-rd., for B.C. B.E. Dep. £2 2s.

NOVEMBER 25.

***Manchester.**—Houses.—350, at Crossacres (No. 2) Wythenshawe estate, for T.C. Chairman of Housing Committee. Dep. £2 2s.

DECEMBER 15.

Kilkenny.—County Hospital.—For Board of Health. Francis C. Ward, F.A.S.I., Quantity S., 21, Bachelor's-walk, Dublin. Dep. £25.

MATERIALS, etc.

OCTOBER 31.

Kesteven.—Granite Slag.—For C.C. C.S., County Offices, Sleaford.

Northamptonshire.—Gravel.—For C.C. E. A. Black, C.S., County Hall, Northampton.

NOVEMBER 2.

Chigwell.—Granite Kerb.—For U.D.C. G. Holbourn, E. and S.

NOVEMBER 4.

Cambridge.—Road Materials.—For C.C. C.S., Cambridge.

Formby.—Road Materials.—For U.D.C. E. and S.

NOVEMBER 7.

Somerset.—Highway Materials.—For C.C. C.S., Taunton.

Stamford.—Road Materials.—For T.C. F. B. Ryman, B.E. and S.

NOVEMBER 9.

Bridgwater.—Road Materials.—For T.C. B. A. Watson, B.E. and S.

NOVEMBER 12.

Grantham.—Granite.—For T.C. B. A. Benn, B.S., Guildhall.

ENGINEERING, IRON AND STEEL.

OCTOBER 31.

Manchester.—Widening.—Of Heaton Park-rd. bridge over River Ilk, Blackley, for T.C. City E. Dep. £3 3s.

Straits Settlements. — Supply. — Of galvanised wrought-iron unsocketed tubes, for Department of Overseas Trade, 35, Old Queen-st., S.W.1. Ref. T.Y.30,662.

OCTOBER 27.

Derby.—Construction.—Of bridge, with incidental works, over L.M. & S. Rly. main Derby-Nottingham line and Derby Canal, for T.C. E. H. Bennett, B.E., 15, Tenant-st. Dep. £5 5s.

Grangemouth. — Constructing. — An electrically operated steel swing bridge at Junction Dock; electrically operated steel bascule bridge at Loch No. 2 (Forth and Clyde Canal); reconstructing roadway on South Bridge-st. and executing relative works, for T.C. Crouch & Hogg, engineers, 17, Lynedoch-st., Glasgow, C.3. Dep. £5 5s.

OCTOBER 31.

Faversham.—Sewers.—And small pumping station, for T.C. B.S., 20, West-st. Dep. £5.

Hungerford. — Reconstruction. — Of Faulkner's bridge, over River Dunn, for Berkshire C.C. H. J. C. Neobard, clerk, Shire Hall, Reading. Dep. £2 2s.

NOVEMBER 2.

Cheshire.—Reconstruction.—And widening of Brooklands Station bridge, carrying Marsland-rd., Sale, over M.S.J. & A. Rly. and Bridgewater Canal, for C.C. G. E. Ashforth, C.S. and Bridgemaster, Watergate House, Watergate-st. Dep. £5 5s.

London.—Construction.—Of bridge over River Wandle, for C.C. Chief E. (B), County Hall, Westminster Bridge, S.E.1. Dep. £3.

Stirling.—Reconstruction.—Of Redding Canal bridge, for C.C. C.S., 41, Port-st. Dep. £3 3s.

NOVEMBER 3.

India.—Bridge.—Seven spans of 105 feet for Nari Bridge, for the Director-General, India Store Department, Belvedere-rd., Lambeth, S.E.1.

NOVEMBER 5.

Atsham.—Water Supply.—For Pinhill and district, for R.D.C. Willcox, Raikes & Marshall, engineers, 33, Gt. Charles-st., Birmingham. Dep. £3 3s.

NOVEMBER 6.

Manchester.—Construction.—Of span steel cable bridge over Rochdale Canal, for T.C. H. C. Lamb, Chief E. and Manager, Electricity Dept., Town Hall. Dep. £1 1s.

NOVEMBER 7.

Greenock.—Reconstruction.—Of 110 ft. of quay on south side of East India Harbour, for Harbour Trustees. H. Gough Gilchrist, General Manager and Secretary, Harbour Offices. Dep. £2 2s.

NOVEMBER 9.

Dunmow.—Waterworks.—Water towers at Cutlers Green and Takeley, for R.D.C. E. Sandeman & Partners, consulting engineers, 15, Victoria-st., Westminster, S.W.1. Dep. £3 3s.

London.—Extensions.—To Council's power station in Townmead-rd., for Fulham B.C. Preece, Cardew & Rider, engineers, 8, Queen Anne's-gate, S.W.1. Dep. £2 2s.

New Romney.—Sewerage.—Works of sewerage and sewage disposal, for T.C. D. Balfour & Sons, consulting engineers, 47, Victoria-st., Westminster, S.W.1. Dep. £5.

Singapore. — Supply. — Of malleable iron pipe fittings and miscellaneous special fittings, for Department of Overseas Trade, 35, Old Queen-st., S.W.1. Ref. T.30,689.

Stevenage.—Sewerage.—Comprising construction of about 2,420 yds. of 21, 15 and 12-in. stoneware and cast-iron pipe sewers, manholes, etc., for U.D.C. D. Balfour & Sons, consulting engineers, 47, Victoria-st., Westminster, S.W.1. Dep. £5.

NOVEMBER 11.

Sherborne.—Sewerage.—At Thornford, for R.D.C. K. R. Blackmore, Sanitary Inspector, Long-st. Dep. £2 2s.

NOVEMBER 12.

Essex.—Bridge.—Bridge and approach viaducts on new road already constructed which by-passes level crossing on Colchester-St. Osyth-rd. B.1027, in Alresford, for C.C. R. H. Buckley, C.S., Chelmsford. Dep. £2 2s.

NOVEMBER 13.

Galway.—Development.—Breaking, dredging and disposal of rock and dredging and disposal of soft material; construction in tidal water of pier and shed upon it, and reconstruction within cofferdam of dock entrance, and provision of pair of dock gates, and various other works, for Harbour Commissioners. Sir Cyril Kirkpatrick & Partners, 25, Victoria-st., London, S.W.1. Dep. £25.

NOVEMBER 14.

Middlesbrough.—Improvements.—Scheme No. 2 for Linthorpe Floods prevention works, for C.B. C. Gorman, B.E. and S.

NOVEMBER 16.

Wigmore.—Reservoir.—Mass concrete reservoir with some reinforcement, with booster pumping station and auxiliary work at Wigmore, near Rainham, Gillingham, for the Rainham Waterworks Co., Ltd., Kent. Herbert Lapworth Partners, engineers, 25, Victoria-st., Westminster, S.W.1. Dep. £22.

NOVEMBER 23.

Dunmow. — Sewerage.—And sewage purification works, contract No. 2, for parish of Felsted, for R.D.C. J. D. & D. M. Watson, engineers, 3, Central-bldgs., S.W.1. Dep. £3 3s.

ROAD, SEWERAGE AND WATER WORKS.

OCTOBER 28.

Alnwick.—Roads.—And sewers in connection with St. Thomas's Close housing scheme, for U.D.C. Gladstone Beaty, Council Offices, Green Batt. Dep. £2 2s.

Amersham Common.—Making-up.—And paving Green-la., Chesham Bois, and Pineapple-rd., and sundry other works, for Buckinghamshire C.C. C.S., County Offices, Aylesbury.

Beddington and Wallington.—Street Improvement. —At Park-rd. and Wandle-rd., Hackbridge, for U.D.C. S. F. R. Carter, E. and S. Dep. £1 1s.

Esher.—Formation.—And construction of concrete road at Claygate-la., Thames Ditton, for U.D.C. S. Dep. £2 2s.

Esher.—Formation.—And construction of concrete road off High-st., Cobham, for U.D.C. S. Dep. £2 2s.

Hampton.—Tree Clearing.—Excavating and filling, and laying-out of grounds to form playing fields, at Hanworth-rd., for Middlesex C.C. Secretary to E.C., 10, Great George-st., S.W.1. Dep. £2 2s.

Hendon.—Construction.—Of concrete tubes, with surface-water chambers and all works incidental thereto, for T.C. A. O. Knight, M.C., B.E. and S., Town Hall, N.W.4. Dep. £4.

Hendon.—Widening.—And reconstruction of part of Brent-st., for T.C. A. O. Knight, B.E. and S., Town Hall, N.W.4. Dep. £4.

Hendon. — Widening.—And reconstruction of Holders Hill-rd. and Dollis-la., for T.C. A. O. Knight, B.E. and S., Town Hall, N.W.3. Dep. £4.

Honiton.—Concrete Road.—Also retaining wall, surface-water sewers and extension of water main in Streamer's Meadows, for T.C. J. W. Jones, B.E. Dep. £3 3s.

Hornchurch.—Reinstatement.—In asphalt of carriage-ways and footpaths throughout district, for U.D.C. T. E Spencer, Highways S.

South Lancashire.—Lowering Invert.—Of Sankey Viaduct, forming new invert of concrete and steel sheet piling, and dredging new cut, for Rivers Catchment Board. R. W. Eaton, F.S.I., E., County Offices, Preston. Dep. £2 2s.

OCTOBER 27.

Billericay.—Construction.—Of sewers and rising mains, also sewage disposal works, for U.D.C. Willcox, Raikes & Marshall, engineers, 33, Great Charles-st., Birmingham. Dep. £10 10s.

Cosgley.—Laying.—Of sewer along Hurst-rd., for U.D.C. E. and S.

Friern Barnet.—Surfacing.—Supplying and laying approx. 3,550 sq. yds. of 2-in. single-coat stone-filled hot steam rolled asphalt surfacing, for U.D.C. E. and S. Dep. £2 2s.

Tottenham.—Road.—650 sq. yds. of asphalt surfacing in High Cross-rd., for T.C. B.E. Dep. 10s.

OCTOBER 28.

Dorking and Horley.—Construction.—Of stoneware and spun-iron sewers, etc., for R.D.C. G. B. Kershaw & Kaufman, engineers, 9, Victoria-st., S.W.1. Dep. £5.

Newcastle-on-Tyne.—Redraining.—Of City Hospital for Infectious Diseases, Walkergate, for T.C. City Estate and Property S.

OCTOBER 29.

Narberth.—Supplying.—Laying and jointing of spun, cast and W.I. pipes with various fittings, together with construction of spring chambers and service reservoirs, at Martletwy, Lampeter Velfrey, Ludchurch and Llanteg, for R.D.C. J. O. Parry & Lewis, consulting engineers, Ammanford. Dep. £5 5s.

Runcorn.—Carrying-out.—Of street works and laying of sewers, and other incidental works, on Ivy-st. housing site, for U.D.C. E. and S. Dep. £3 3s.

Seaford.—Making-up.—Of Southdown-rd., Rotherrd. and Links-rd., for U.D.C. E. A. Lister, S.

Seaford.—Sewer.—15-in. sewer in Chyngton-gdns., for U.D.C. S.

OCTOBER 31.

Faversham.—Sewers.—And pumping station, for T.C. B.S. Dep. £5.

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Hallenprice. — Improvements.—In Kingston-rd., Willerby, for U.D.C. T. C. Slack, E. and S. Dep. £3 3s.

Peterborough.—Mains.—Supplying and laying approx. 2,050 lin. yds. of 4-in. dia., 175 lin. yds. of 6-in. dia., and 1,806 lin. yds. of 8-in. dia. water mains, together with all necessary specials, in Dogsthorpe, Werrington, Paston and Fletton districts, for T.C. City E. Dep. £2 2s.

Romford. — Making-up.—Of Rosemary-av., for U.D.C. E. and S., 110, Market-pl. Dep. £1 1s.

Wellington (Som.).—Strengthening.—And reshaping road in centre of town, for U.D.C. S.

Woking. — Making-up. — Of Holyoake-av. and Holyoake-cres., Horsell, for U.D.C. S. Dep. £1 1s.

NOVEMBER 2.

Banstead.—Making-up.—Of Longcroft-ave., for U.D.C. S. Dep. £1.

Southampton.—Road.—In connection with housing scheme, at Redbridge Hill, for C.B. B.E. Dep. £1 1s.

NOVEMBER 3.

Chislehurst and Sidcup.—Making.—up.—Of Elmhurst-rd., Mottingham, for U.D.C. Edgar Lawes, E. and S. Dep. £1 1s.

Watford.—Making-up.—Of various roads, for T.C. W. W. Newman, B.E. Dep. £2 2s.

NOVEMBER 4.

Bromley.—Main.—Pumphouse and laying of a 33-in. cast-iron delivery main at sewage purification works, Long Reach, Dartford, for West Kent Main Sewerage Board. A. E. Scott Murray, Engineer, "Barnfield," Blyth-rd., Bromley. Dep. £3 3s.

Clacton.—Sewering.—Hill-rd. (part) and Dovedale-gdns., for U.D.C. Wm. Aiston, S.

Hove.—Making-up Roadway.—Providing and laying granite kerbing and channelling and artificial stone slab paving, and other works in connection therewith in Woodland-drive and Goldstone-cres., for T.C. B.S.

Market Bosworth.—Sewers.—For parish of Groby, for R.D.C. Pick, Everard, Keay & Gimson, engineers, 6, Millstone-ln., Leicester. Dep. £2 2s.

***Middlesbrough.**—Extension.—Of existing outfall into Old River course to Tees Valley sewer in Stockton-rd., and other works, for T.C. B.E. Dep. £10 10s.

NOVEMBER 5.

Newbiggin-by-the-Sea. — Levelling.—Kerbing and flagging of footpaths and forming, levelling, drainage and paving of carriageways and laying of pipes, with manholes, etc., at Woodhorn Demesne, for U.D.C. James Kailofer, S. Dep. £2 2s.

NOVEMBER 6.

Lymington.—Construction.—Of cast-iron sewer outfall, on timber piles, in Solent, for T.C. B.E Dep. £3 3s.

Chadderton.—Reconstruction.—Of Middleton-rd. (part of), for U.D.C. S. Dep. £1 1s.

Chipping Norton.—Mains.—Laying of approximately 2,160 yds. of 4-in. and 3-in. cast-iron water mains and fittings, for T.C. Major W. H. Bateman, consulting engineer, Batheaston, Bath. Dep. £2 2s.

NOVEMBER 7.

Flaxton.—Provision.—And laying of concrete and iron sewers, manholes, etc., and erection of sewage disposal works to certain parishes, for R.D.C. Fairbank & Son, Barclays Bank-chmbrs., St. Helens-sq., York. Dep. £5 5s.

Southall-Norwood.—Making-up.—Of Belmont-ave. and Bankside, for U.D.C. J. B. Thomson, E. and S. Dep. £2 2s.

NOVEMBER 9.

Dunmow.—Pipe Laying.—For R.D.C. E. Sandeman & Partners, engineers, 15, Victoria-st., S.W.1. Dep. £3 3s.

Hendon.—Making-up.—Of Broadfields-ave. (part of), Broadhurst-ave., Gibbs-gree (part of), Ridgemont-gdns., Ranelagh-dr., Hale-dr., Holmwood-gr., The Circle, Hocroft-rd., and Raleigh-close, for T.C. A. O. Knight, B.E. and S. Dep. £4.

Monmouthshire.—Making-up.—Of various roads, for C.C. Thomas & Morgan & Ptnrs., engineers, 23, Gelliwastad-rd., Pontypridd. Dep. £2 2s.

Ormskirk.—Mains.—Laying of cast-iron and asbestos water mains, for U.D.C. J. Haydn Thomas, Clerk. Dep. £3 3s.

Romford.—Reconstruction.—Of Chase Cross-rd., for length of approximately 730 yds., for U.D.C. E. and S., 110, Market-pl. Dep. £2 2s.

NOVEMBER 10.

Crewe.—Making-up.—Back passage rear of 2-8, Bedford-st.; Jubilee-ave. (alongside No. 1a); Rockwood-ave.; Buchan-gr., and making and sewering Jubilee-ave. (rear of 1a-No. 16), for T.C. B.E. and S. Dep. £2 2s.

Godstone.—Road Work.—New roads and sewers in connection with housing scheme at Coldshott, Hurst Green, Oxted, for R.D.C. S. Easter, E. and S. Dep. £2 2s.

NOVEMBER 11.

Crediton.—Works.—In connection with Lapford sewerage scheme, for R.D.C. S.

Newbury.—Construction.—Of new road in tarmacadam, together with car park, for T.C. B.S.

NOVEMBER 12.

Godalming.—Construction.—Of stoneware pipe sewers, with manholes and appurtenant works, for T.C. B.S.

Preston.—Additions.—And alterations to sewage disposal works at Grange Farm, Freckleton, for T.C. B.E. Dep. £2 2s.

NOVEMBER 14.

Bexhill.—Making-up.—In reinforced concrete St. David's-ave.; Camperdown-st.; Cooden-dr. Footpaths (part), for T.C. B.S. Dep. £1 1s.

NOVEMBER 16.

Epsom and Ewell.—Sewer.—Main drainage work, for Western trunk sewer, for U.D.C. N. Auty, E. and S. Dep. £2 2s.

Lyme Regis.—Making-up.—Of Woodmead-rd., for T.C. B.S. Dep. £2 2s.
Sherborne.—Water Supply.—For U.D.C.. C. E. Bean, Water Engineer. Dep. £2 2s

NOVEMBER 23.

Chester.—Construction.—Of steel tube and cast-iron sewers, for T.C. Charles Greenwood, E. and S. Dep. £2 2s.

Public Appointments.

OCTOBER 26.

Cannock.—Clerk of Works.—For U.D.C. Clerk.
Nuneaton.—Architectural Assistant and Engineering Assistant.—For T.C. B.E. and S.
Rawmarsh.—Architectural Assistant.—For U.D.C. Clerk, Parkgate, Yorks, W.R.

OCTOBER 27.

***Brighton.**—Draughtsman (Temp.).—For C.B. B.E.
Cheshire. — Quantity Surveyor (Temp.). — For C.C. F. Anstead Browne, F.R.I.B.A.
Cheshire.—Junior Architectural Assistant (Temp). —For C.C. F. Anstead Browne F.R.I.B.A.
Cheshire.—Architectural Assistant (Temp.).—For C.C. F. Anstead Browne, F.R.I.B.A.
Durham. — Architect's Assistant (Temp.). — For C.C. Director of Agriculture.

OCTOBER 29.

Northwood. — Third Assistant. — For Ruislip-Northwood U.D.C. E. and S.

OCTOBER 30.

Brecon.—Architectural Assistant (Temp.). — For C.C. Clerk.
Essex.—Architectural Assistant.—For C.C. J. Stuart, F.R.I.B.A., Chelmsford.
***Lewes.**—Architectural Assistant and Junior Architectural Assistant (Temp.).—For East Sussex C.C. E. A. Verger, F.R.I.B.A.
Liverpool. — Junior Surveying Assistant. — For T.C. T.C.
Salford.—Building Inspector.—For T.C. City E.
Southend-on-Sea.—Quantity Surveyor's Assistant (Senior Taker-off).—For C.B. B.E.
Wellington (Somerset).—Clerk of Works.—For U.D.C. Clerk.

OCTOBER 31.

***Kent.**—Instructor in Carpentry at The Stanhope School, Ashford.—For C.C. W. D. Blackshaw, Headmaster.
London.—Quantity Surveyor to teach Building Construction.—For Northern Polytechnic, Holloway, N.7. Clerk.
London.—Teacher of Building Construction and Materials.—For Northern Polytechnic, Holloway, N.7. Clerk.
***London.**—Building and Drainage Inspector.—For Wandsworth B.C. B.E., 215, Balham High-rd., S.W.17.
***Sutton Coldfield.**—Technical Assistant (Temp.). —For T.C. T.C.
***Warrington.**—Clerk of Works.—For C.B. T.C.

NOVEMBER 2.

***Lancashire.**—Architectural Assistants and Quantity Surveyors.—By C.C. S. Wilkinson, F.R.I.B.A., County Architect, Preston.
***Plymouth.**—Two Architectural Assistants (Temp.). —For T.C. City Architect.
Yorkshire.—Architectural Assistant; one Senior and one Junior Quantity Surveying Assistant.—For C.C. of West Riding. Education Officer, Wakefield.

NOVEMBER 4.

***Derby.**—Quantity Surveying Assistant.—For C.C. County Architect.
***London.**—Assistant Quantity Surveyor (Temp.). —For Southwark B.C. T.C.
***Torquay.**—Clerk of Works (Temp).—For T.C. B.E.

NOVEMBER 6.

***London.**—Third Engineering Assistant.—For Islington B.C. B.E. and S.

NOVEMBER 9.

Bolton.—Chief Architectural Assistant.—For C.B. T.C.

NOVEMBER 10.

London.—Visiting Teacher for Land Surveying at School of Building, Ferndale-rd., Brixton.—For L.C.C. Education Officer (T.1), County Hall, S.E.1.

NO DATE.

***Aldershot.**—Civilian Clerks of Works (Temp.).—For War Department. Chief Engineer, Command Headquarters.
***London.**—Architectural and Engineering Assistants, Assistant Quantity Surveyors, Clerks of Works, and Heating Assistants.—For Air Ministry. Secretary (W.B.9), Adastral House.
***London.**—Architectural Assistant (Temp.).—For L.C.C. Architect, County Hall, S.E.1.
***London.**—Qualified Draughtsmen.—For Royal Arsenal. Chairman, Appointments Board, Woolwich, S.E.18.
***London.**—Clerk of Works (Temp.).—For Government of Gambia. Crown Agents for the Colonies, 4, Millbank, S.W.1, quoting M/4632.

Southern Counties Federation: Autumn Meeting.

The autumn general meeting of the Southern Counties Federation of Building Trades Employers was held in Haywards Heath on October 7, under the chairmanship of the President, Mr. G. Herbert Cawte, M.M., M.I.O.B. Prior to the meeting, the officers and council of the Federation lunched with the members of the East Grinstead Association, who were the hosts of the Federation at the informal tea which followed the meeting.

CURRENT & PROPOSED BUILDING WORK*

Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; B.S. for Borough Surveyor; B.E. for Borough Engineer; D.S. for District Surveyor; C. for Clerk; T.C. for Town Clerk; C.E. for County Engineer; C.S. for County Surveyor; S. for Surveyor; E. for Engineer.

Aldridge.—First National Housing Trust, Ltd., Beeches-rd., Birmingham, propose 3,600 houses and shopping centres at Great Barr.

Bacup.—H. Cropper, architect, 2, Holmes-drive, prepared lay-out plans for houses at Lane Ends and Rockliffe.—E.C. propose elementary school for 470 children.

Bakewell.—U.D.C. propose lay-out of land at Stanton View for 28 houses. Estimated cost £11,000. T. W. Baker, S., Council Offices.

Barnsley.—T.C. approved: 66 houses, Warner-ave. and Warner-pl., off Pogmoor-rd., Real Estates (Doncaster), Ltd.

Bath.—T.C. to obtain tenders for demolition of Bathwick Mill.—A. J. Taylor, architect, to prepare scheme for rebuilding 17, 18, 19 and 19a, Westgate-st.—Sub-station to be built at Combe Down.—City E. produced lay-out plan for 34 one-story houses on surplus land at Shophouse-rd., providing accommodation for 68 persons, at £10,500, and plan been submitted to Ministry for approval.—Joint City Improvements and Parliamentary Bill Committees desired Housing Committee to consider purchase of additional land for erecting houses to accommodate persons to be displaced by demolition in connection with Mineral Water Hospital.—E. S. Hoare, consulting engineer for heating system at Art Gallery and libraries.—City Council to acquire and adapt White House, Upper Weston, for observation centre and nursing home for mental illness, at £4,700.—Council proposed A. J. Taylor as architect for new fire station.

Beaconsfield.—Adrian G. Scott, F.R.I.B.A., 3, Field-court, Gray's Inn-sq., London, W.C.1, architect for extensions to Church of St. Teresa, Warwick-st. Cost £10,000.

Bingley.—U.D.C. approved:—34 houses, Cullingworth; lay-out at Harden Beck for Goit Stock Development Co., Harden.

Birmingham.—The National Housing Trust propose 3,600 dwellings, Pheasey estate at Queslet, Great Barr.

Bishop Auckland.—Commissioner for Special Areas given grant of 75 per cent. towards cost of £23,000 for sewerage schemes in rural area. Engineers, R. Taylor & Wallin, Saville-row, Newcastle.

Blackpool.—Preston Savings Bank, Church-st., Preston, proposing alterations at 282, Lytham-rd., South Shore. Architects, Whitaker & Gardner, 16, Edward-st. Contracts not placed.

Blackpool.—C.B. propose 250 houses during next three years.—B.S. to invite tenders for demolition of 480, Talbot-rd.—Council proposes conveniences at entrance to Marton cemetery, junction of Cherry Tree-rd. and Vicarage-la., opposite "Welcome Inn," Marton, land in Squires Gate-la., junction of Lytham-rd., south-easterly corner of Squires Gate-la. and Lytham-rd., and on Promenade, opposite Central Station.—B.S. to invite tenders for alterations to South Shore branch library.—B.S. prepared plans for public conveniences in proposed bus station and garage at Talbot-rd.—Library and Art Gallery Committee propose painting work at following branch libraries: South Shore (Lytham-rd.), Claremont, Central Library and Art Gallery.—Alterations to be carried out to South Shore branch library in accordance with plan by B.S. Plans passed: Transformer sub-station, Washington-av., Corporation; alterations, 282, Lytham-rd., Preston Savings Bank, Ltd.; 20 houses, 20 garages, Whinney Heys-la., etc., W. H. Airey; 32 houses, Drakelowe-av., etc., Staunton & Co.; 109 houses, Holyoak-av., etc., R. Fielding & Son.—Council approved applications by J. W. Anderson for 8 shops, Haddle House estate, Luton-rd. East; Thompson & Porter, petroleum filling station, 81, Charles-st.; and density plan for land on Warbeck Hill estate, for R. Fielding & Son.—Co-operative Society, Ltd., proposing setting back of premises, Newhouse-rd.—Sub-stations to be erected in Blackpool, Carleton and Washington-avs.—Council received consent of M.H. to £7,450 in connection with substructural works of proposed indoor bath on Pembroke estate. —B.S. been authorised, by direct labour and in accordance with estimate, to provide pumping station and construct culvert for indoor bath on Pembroke estate.—Garage extensions proposed at Rigby-rd.

Blyth.—It is proposed to build Roman Catholic school. Plans by R. Burke, Singleton House, Newcastle.

Bognor Regis.—War Memorial Hospital to be extended to provide 20 additional beds. Cost £70,000.

Bolton.—T.C. propose to develop 15 acres of land off Long-la. for housing site.

Carlisle.—E.C. approved proposals for erection of 10 additional elementary schools and reconstruction of existing schools.—Board of Management of Infirmary propose extension scheme. Plans being prepared by S. W. B. Jack, architect, 35, Warwick-rd.

Chapel-en-le-Frith.—Ferodo, Ltd., propose extensions to offices. Butterworth & Duncan, architects, 2, Baillie-st., Rochdale. Tenders to be invited.

Chester.—City Council propose suspension bridge with approaches from Boughton to Dee Meadows, Chester. Charles Greenwood, M.I.C.E., City E. and S. Cost, £18,750. Tenders shortly to be invited.

Colne.—E.C. propose extensions of Primet council school at Baggot Gate.

Coventry.—Owen Thornell, Ltd., Balsall Common, Berkswell, propose extensions to factory at Balsall Common. Plans by McKewan & McKewan, AA.R.I.B.A., architects, 135, Colmore-row, Birmingham. Contracts not let.—Bass, Ratcliff & Gretton, Ltd., brewers, The Brewery, Burton-on-Trent, proposing "Aldermoor Hotel," corner of Aldermoor-rd. and Roundhouse. Architect, T. D. Griffiths, 3, The Quadrant, Warwick-rd. Contracts not placed.—Housing Committee propose 82 additional houses off Stoneleigh estate, Canley. E. H. Ford, M.I.C.E., City E.—Board of Governors of Babbake School propose science block. Plans prepared by J. T. Jackson, A.R.I.B.A., 5, The Quadrant. Cost, £10,000. Contracts not let.

Darlington.—T.C. acquired land in Geneva-rd. East, from S. Cohen, for houses. Plans by E. Minors, B.E.

Doncaster.—Walker & Thompson, FF.R.I.B.A., architects, 76, Hallgate, preparing plans for proposed Waverley school for E.C.—E.C. propose grammar school at Doncaster. Architect, J. R. Leathart F.R.I.B.A., 39, Gordon-sq., London, W.C.1. Contracts not placed.—Juvenile gymnasium for junior instruction centres at £1,760.

Essex.—C.C. approved: Sub-station, part of site of South-East Technical College, for Barking T.C.; enlargement, Braintree Chapel-hill school, £6,556; assembly hall and kitchen, Earls Colne school, at £1,185; site for Stanway school at Blackpits Farm, at £760; new floors at Hornchurch Park-la. school, at £429; additional heating, Havering-rd. school, Romford, at £266; widening Oldchurch-rd. and Chingford Mount-rd., at £36,533; construction of second carriageway from western approach of L.M. & S. Rly. bridge to East Ham County borough boundary, reconstruction and widening of existing carriageway and provision of dual cycle tracks on East Ham and Barking By-pass (A13), and construction of traffic system at junction of that road and Movers-la., at £41,544; construction of second carriageway and dual cycle tracks on Woodford-Ilford-rd. (A1083) between Beehive-la. and Chigwell-rd., and construction of traffic roundabout, junction of roads, at £26,440; reconstruction and widening Whalebone-la. overline bridge, Dagenham, at £3,890; widening Haveringwell bridge on Ilford-Upminster-rd., Hornchurch, at £2,000; reconstruction of St. Osyth Mill bridge, at £9,500; purchase by Epping R.D.C. of site at Rim Farm, Theydon Bois, for school; repairs at Bloomfield Hall Farm, at £600, and reconditioning two farm cottages, at £300; appropriation of portion of Broomfield Hall Farm site for school; extension "D" ward block, Oldchurch hospital, at £350 6s 0d., also other additional accommodation at hospital, at £300; site at

* See also List of Contracts open.

*** **In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced.**

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Crowlands Farm, Romford, for hospital; purchase site north side Tilbury Arterial-rd., near Chadwell St. Mary, for hospital accommodation; purchase land in Altnacealgach estate, Park-rd., Colchester, for hospital accommodation; purchase land in Chelmsford for hospital accommodation; £800 for land for diseases clinic at Oldchurch hospital; combined treatment centre, Canvey Island, at £3,268; same at Epping, at £3,227; adaptation of building for combined treatment centre, at £190; new boiler house and plant on land south of Dorcas ward at Epping Institution, at £12,000; sundry internal decorations and provision of jointless floors in kitchen and scullery at Braintree Children's Home, at £154 10s.; renovations and provision of jointless floors in kitchen, scullery and pantry at Writtle Boys' Home, at £166; completion of partially built hospital block at Orsett Institution, at £6,408.

Felling-on-Tyne.—U.D.C. proposes another 100 houses to relieve overcrowding.

Flint.—Flintshire E.C. propose infants' and junior school for 400 children. R. G. Whitley, L.R.I.B.A., County Architect, Mold.

Gateshead.—Havmor, Ltd., Havmor House, Westerhope, Newcastle-on-Tyne, proposing factory at Team Valley. Plans by North Eastern Trading Estates, Ltd., Metro-Vick House, Northumberland-rd., Newcastle-on-Tyne. Contracts not placed.

Gateshead.—Scheme for secondary school for girls in Dryden-rd., to cost £59,000, approved by T.C. and application being made to B. of E.—It is proposed to build Roman Catholic school at Low Fell. Architects, P. J. Steinlet & Sons, Saville-chambs., Newcastle.

Gosforth.—Tenders to be invited at early date by Northumberland Aged Miners' Homes' Association for about 14 homes. Architects, W. Dixon & Sons, 1, Collingwood-st., Newcastle-on-Tyne.

Halesowen.—T.C. propose to acquire land at Drews Holloway, Cradley, for housing site.—Worcestershire C.C. propose technical school on grammar school playing fields. Plans prepared for boys' department of proposed senior council school in Stourbridge-rd. A. V. Rowe, County Architect, 38, Foregate-st., Worcester.

Halifax.—T.C. has received consent from M.H. to £1,056 for land at Weather House Farm, Pellon; £10,000, purchase of land in and adjoining clearance areas; £10,622, erection of 36 flats in South-st.; £18,853 and £2,159, road and sewer works on Park Lodge estate; £130,119, erection of 330 houses and 50 bungalows on Park Lodge estate; and £11,560, erection of 30 houses on Sandbeds Farm estate.

Hawkshead.—Lancashire E.C. propose junior and infants council school on land of Grammar School Foundation, Stephen Wilkinson, F.R.I.B.A., County Architect, Preston.

Hazel Grove.—T. H. L. Eggington, builder, 6, Bridge-in., Bramhall, propose 195 houses, Brookdale Bank estate, Bramhall.

Holywell.—J. Parry Jones, architect, 73, Chester-rd. East, Shotton, preparing plans for proposed layout of Greenfield Hall estate, for Astbury & Sandbach, Greenfield.—J. Simmons & Co., 5, Regent-ter., South Parade, Doncaster, prepared plans for development of Parry's Mine estate, Greenfield, for housing site.

Holywell (N. Wales).—Alterations to be made to 11 windows in Parish Church. Particulars from Geo. W. Haswell, 31, Parkgate-rd., Chester.

Huyton.—Lancashire E.C. propose branch library at £4,150.—E.C. approved final plans for Huyton Long View Farm estate proposed council school for 200 scholars (senior), 364 junior mixed and 280 infant children. Plans by Stephen Wilkinson, F.R.I.B.A., County Architect, Preston.

Jarrow.—It has been decided to extend parish hall at Monkton. Architects, Hicks & Charlewood, Mosley, Newcastle.

Kettering.—Stewarts & Lloyds, Ltd., Steel Works, Corby, propose 500 additional houses off Occupation-rd., Corby. Architect, Laurence M. Gotch, F.R.I.B.A., 5, Cheapside, London, E.C.4.

Lincoln.—Prices Tailors, Ltd., Cardigan-cres., Kirkstall-rd., Leeds, 4, proposes shops and showrooms at St. Peter's-at-Arches. Plans by P. S. B. Nicolle, resident architect, Cardigan-cres., Kirkstall-rd., Leeds. Tenders not yet invited.

Litherland.—U.D.C. considering public swimming baths.

Liverpool.—T.C. to use 23-25, Russell-st. for housing purposes.—Land in Queen's-dr., Walton, to be used for maternity and welfare clinic.—Corporation approved Lorton-st., Maynard-st. (Nos. 1-4), Liverpool-rd., Long View Farm estate clearance schemes.—M.H. consented to borrowing following: Fazakerley hospitals and sanatorium, erection of 2 recreation halls, £4,850; maternity and child welfare centre and school medical clinic, Fazakerley, provision of new clinic, £6,300; maternity and child welfare centre, purchase and adaptation of premises, 338, Netherfield-rd. North, £1,700; and Alder Hey hospital, conversion of ward into cubicles, £1,850.

Liverpool.—Plans passed by Corporation:—garage and offices, Speke Hall-rd., Kenmure Kinna, for E. Box & Co., Ltd.; addition to drying rooms, Breckfield-rd. South, W. A. Lowery, Manchester; office building, Hanover-st. and Seel-st., Kenmure Kinna, for Hanover Properties, Ltd.; 74 tenements, Westmoreland-pl., Corporation; 16 houses, Speke Hall-rd., 20 houses Hillfoot-rd., 124 houses Barford-rd., 102 houses Leafield-rd., 18 houses Farringdon-close, 4 houses Enstone-rd., 46 houses Armscot-close, 12 houses Armscot-pl., 18 houses Brayton-close, 18 houses and 83 houses in proposed 120 ft. road, Unit Construction Co., Ltd.; 6 houses and 8 shops, Bentham-dr., H. E. Davies & Son, for Unit Construction Co., Ltd.; public-house, King's-dr., A. E. Shennan, for Bents Brewery Co., Ltd.; public-house, "Yew Tree Inn," Finch-in., Edmund Kirby & Sons, for Greenall, Whitley & Co., Ltd.; factory premises, Broad-in., Mortar & Dobie, for J. R. Carmichael; 6 flats, Muirehead-av., and 9 flats, Adshead-rd., Corporation; 21 houses, Blackmoor-dr., R. G. Tyrer, for Scarrett Bros.; 36 houses, Staverton-close, and 20 houses, Warren-close, N. V. Jenkins, for Muirehead Building Co., Ltd.

London (Poplar).—B.C. recommend application to Electricity Commissioners for sanction to borrowing £120 for purchase of site for sub-station in Dolphin-la., Poplar High-st.—Council to borrow £1,530 for land for maternity and child welfare clinic in Ruston-st. and Wendon-st., and £11,200 for flats in St. Stephen's-rd.—196, Bow-rd. acquired by L.C.C. for housing.—L.C.C. proposing school, Wharf-rd., Cubitt Town, E.14.

London (Westminster).—City Council to demolish urinal at north end, Chelsea Bridge.

Longbenton.—Extensions to be made to Methodist Church to plans by Marshall & Tweedy, 129, Pilgrim-st., Newcastle-on-Tyne.

Lostock (Bolton).—De Havilland Aeroplane Co. to erect factory.

Macclesfield.—Catholic Authorities propose church and schools, Moss estate.—T.C. propose library and child welfare centre, Moss estate.

Manchester.—Lancashire P.A.C. propose nurses' home, Green-ln. Institution, Patricroft, at £8,925. Stephen Wilkinson, F.R.I.B.A., County Architect, Preston.—E. Hartley, 63, Claude-rd., Chorlton-cum-Hardy, proposes petrol-filling station and repair shop corner of Egerton-rd. South and St. Werburgh's-rd., Chorlton-cum-Hardy.—Beswick Co-operative Society, Ltd., Grey Mare-ln., Bradford, propose single-story shops, Hyde-rd., Highfield Range and Westbourne Range, Gorton. Plans by W. A. Johnson, Chief Architect, Co-operative Wholesale Society, Ltd., Balloon-st. Contracts not let.—John Statham, jun., 4, Park-rd., Romiley, nr. Stockport, prepared plans for commercial garage to Gaythorn car park, Albion-st. and Whitworth-st. West, for H. Timperley.—Halliday & Agate, architects, 14, John Dalton-st., preparing plans for shopping centre, Lightbowne-rd. and Sulby-st., Moston, for Lightbowne Estates, Ltd.—E.C. proposes to enlarge Old Hall-dr. council school, Gorton, for additional accommodation for about 750 children. Contracts not let.

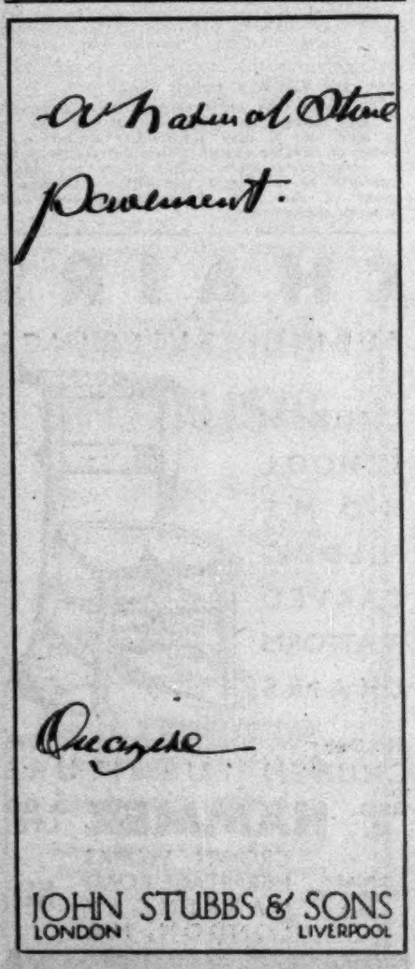
Manchester.—Corporation to erect 330 houses, Red Bank farm, off Princess Parkway.

Market Drayton.—J. Jules & Sons, Ltd., The Brewery, Stone, propose new "Lord Hill" inn at Little Drayton. Plans in Architects' Dept. (Chief Architect, J. S. Redman), Brewery Offices. Contracts not placed.

Middlesbrough.—Society of Marist Fathers propose extensions to St. Mary's College. Plans by T. Crawford, architect, 82, Borough-rd. Contracts not let.

Middlesbrough.—Consideration to be given by T.C. to dance hall and café, etc., in Stewart Park. Scheme by C. Gorman, B.E., estimates cost at £7,300.

Morpeth.—Application been made to M.H. by T.C. for permission to acquire land at Stobb Hill for houses.



Newcastle.—Co-operative Society to build shops and premises in Benton-rd. Plans by C.W.S. Architects' Department, 90, Westmorland-rd.

Newcastle-on-Tyne.—Gold & Sons, builders, Clayton-st., Newcastle-on-Tyne, to erect 28 houses in Dipton-av., to plans by C. S. Errington, 46, Grainger-st., Newcastle-on-Tyne.—Motor Bodies, Ltd., Newcastle, to erect workshops at works in Warwick-st., and plans approved. Architects, Marshall & Tweedy, FF.R.I.B.A., Mervyn House, 129, Pilgrim-st. No contracts let.—Social centres to be erected by City Council on Daisy Hill and Ferguson's-ln. estates, and tenders invited. Plans by R. G. Roberts, City Architect, 18, Cloth Market.—Approval given in principle by City Council to 200 bungalows, at £67,035. Plans by City Architect, 18, Cloth Market.

Portsmouth.—T.C. approved: J. Baker & Co., Ltd., shops and offices, 261-267, Commercial-rd.; S. J. Kelly, 2 blocks of flats, London-rd., Hilsea; Portsea Island Mutual Co-operative Society, Ltd., office extension, Fratton Goods Yd.

Reading.—D. C. Wadhwa proposes 25 flats, junction of Brunswick-st. and Bath-rd.

Rowley Regis.—T.C. propose 46 additional houses Garretts Mound.—T.C. propose erection of houses on Thorn-rd.

Scarborough.—T.C. approved: P. Chase Gardener & Co., for Catlin's Arcadia, Ltd., 24 flats, King-st.

Stoke-on-Trent. — Staffordshire E.C. propose junior mixed and infants' school, Forsbrook-rd., Draycott-in-the-Moors. Plans by G. C. Lowbridge, L.R.I.B.A., Education Architect, Stafford. Cost £5,000.—C.E. Authorities propose Church of St. Francis of Assisi at Meir Heath. Architect, F. R. Lawson, 36, Glebe-st. Estimated cost £7,000.

Seaham Harbour.—Roman Catholic school to be built. Architects, P. J. Steinlet & Sons, Saville-chambs., Newcastle.

Skipton.—Local E.C. approve of plans submitted by West Riding C.C. for grammar school at £50,000. Plans by H. Wormald, Education Architect, Wakefield. Tenders will shortly be invited.

Southall-Norwood.—U.D.C. proposing 20 acres of land at Mount Pleasant allotments site for housing.—£168 to be spent on fencing in South-av. and South Avenue-gdns.—Plans passed: Extensions to motor showroom and shop adjoining 33, The Grove, North-rd., for Mrs. C. M. Brown; extension to garage at factory, Rubastic-rd., for Kearley & Tonge; alterations and additions to 90 and 92, The Broadway, for H. W. Cousins; laundry, Kingsbridge-cres., for London Laundry, Ltd.; extension to sports pavilion at works of Associated Equipment Co., Ltd., in Windmill-la.; revised lay-out plan for 14 bungalows and 34 houses, Allenby-rd., for New Ideal Homesteads, Ltd.

Stanley.—Tenders invited by U.D.C. for 63 houses at Stanley and Southmoor. Plans by S.

Stannington.—Northumberland P.A.C. approved draft scheme for institution for infirm and casual sick and for nursery children and casuals. Architect, W. W. Tasker, County Hall, Newcastle.

Stourbridge.—T.C. to erect 90 three-bedroom non-parlour houses and 10 one-bedroom non-parlour bungalows.

Stretford.—T.C. made application to M.H. for sanction to borrow necessary loan for technical college and playing fields.—Plans passed: 36 houses, Norwich-rd., A. Locke, Ltd.; office extension (switchgear), Westinghouse-rd.; offices (inspection, etc., dept.), pattern shop and heat treatment building, for Metropolitan-Vickers Electrical Co., Ltd.

Sutton Coldfield.—E.C. to erect infant and junior mixed schools (750 places), Cofield-rd., Boldmere.

Wallsend.—Council to build maternity and child welfare centre and school clinic, at £17,000.

Walthamstow.—T.C. received sanction to borrow £10,231 for pavilion, etc., at Lloyd-pk.—Houses on Essex Hall and Kimberley-rd. estates to be painted and cleaned, at £3,630.—Plans passed: Destructor extension, B.C.; extension to stand, Walthamstow Stadium, W. & C. French.—Ministry approved borrowing by Council of £1,742 for pavilion and house at Low Hall Farm sports ground.—B.E. and S. prepared sketch plan for convenience, junction of Billet-rd. and Chingford-rd.—Convenience proposed at Woodford New-rd.

Washington.—Sites for more houses to be acquired by U.D.C. at Springwell and Washington.

Wembley.—U.D.C. approved: Neasden Property Co., 20 bungalows, Kingsbury Rise estate; Prince & Co., 4 shops with 7 flats over, Kingsbury-rd. junction with Manor-close.—Council recommend S. to erect close-boarded fence along boundary of Roe Green-pk., adjoining grounds of Kingsbury Manor, at £130.—£1,900 price for clinic building, One Tree Hill recreation ground.

Wednesbury.—T.C. approved: P. Newman, factory premises, Holyhead-rd.; British Steel Construction (Wednesbury), Ltd., works extension, Smith-rd.

Wednesfield.—W. Butler & Co., Ltd., Springfield Brewery, Wolverhampton, propose licensed premises corner of Amos-ln. and Prestwich-rd. Lavender & Twentyman, architects, Waterloo-chams., Waterloo-st.

Whitby.—Scarborough and Whitby Breweries, Ltd., to rebuild "Buck Hotel," at Ann's Staith. Plans by A. E. Young, Baxtergate. No contracts let.

Willington Quay.—Plans for Roman Catholic school for about 350 scholars been sent to B. of E. for approval. Architect, R. Burke, Singleton House, Newcastle.

Winchester.—Plans have been prepared by Ronald Ward, architect, for 30 flats, for London & Provincial Property Society, Ltd., who have bought site near old college.

Worthing.—R.D.C. to apply for £17,350 for 48 houses in Lancing.

York.—City Council to complete public library, at £16,000.

PRICES CURRENT OF MATERIALS*

Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside in River Thames up to Mortlake

	£ s. d.
Best Stocks	4 2 0
Second Hand Stocks	3 10 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
"Phorpres"	*2 6 3	Flettons, B'll'n'se	3 6 6
Flettons at King's Cross	*2 6 3	Best blue Pressed Staffs	8 5 0
Do., grooved for Plaster	*2 8 3	Do. Bullnose	8 15 0
		Blue Wire Cuts	7 0 0

White Midhurst Facing Bricks (delivered London site) 4 0 0
"Phorpres" Whites (King's Cross) 3 11 3
"Phorpres" Rustic Facings (King's Cross) ... *3 6 3

Best Stourbridge Fire Brick:—
2½ in. ..... 7 15 0 3 in. 8 15 0
*Delivered to site in W.C. district, 4/3 extra per 1,000.

GLAZED BRICKS—

Best White		Db'le Str'tch'rs	31 10 0
Ivory and Salt Glazed		D'ble Headers	28 10 0
Stretcher	23 0 0	One side and two Ends	32 10 0
Headers	22 10 0	Two sides and one End	33 10 0
Quoins, Bull-nose and 4½ in. Flats	29 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

CLINKER CONCRETE.

2" per yd. sup.	1 6	3" per yd. sup.	2 0
2½ " " ...	1 8	4" " "	2 4

CRANHAM TERRA COTTA.

2" per yd. sup.	3 0	3" per yd. sup.	3 8
2½ " " ...	3 6	4" " "	4 7

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2" ...	2 6	12" x 9" x 3" ...	3 0
12" x 9" x 2½" ...	2 9	12" x 9" x 4" ...	3 9

Per yard super d/d. Free on site, London.

	s. d.	
Thames Ballast	7 3 per yd.	delivered 2 miles radius Paddington.
Pit Ballast	6 3 " "	
Pit Sand	7 9 " "	
Washed Sand	8 3 " "	
¾ in. Shingle	7 3 " "	
¾ in. Broken Brick	11 3 " "	
Tan Breeze	8 3 " "	

CEMENT.

Best British Portland Cement, Standard Specification, delivered London Area in jute sacks (11 to ton), or paper bags (20 to ton) free (non-returnable):—

	£ s. d.
2 ton loads and upwards site ..... Per ton	1 19 0
1 ton to 4 tons site	2 1 0
Alongside Vauxhall in 80-ton lots	1 15 0
"Ferrocrete" Rapid Hardening Cement:—	
4 ton loads and upwards site	2 5 0
1 ton to 4 tons site	2 7 0
Alongside Vauxhall in 80-ton lots	2 1 0

NOTE.—Jute sacks are charged 1s. 6d. each and credited 1s. 6d. nett, if returned in good condition within three months, carriage paid.

Water Repellent "Blue Circle" Cement, 30/- per ton extra on ordinary "Blue Circle" Portland Cement prices.

"Colocrete" Nos. 1 and 2 Coloured Rapid Hardening Portland Cement in 1-cwt. paper bags free (non-returnable) in 1-ton lots and upwards site 3 6 0

"Snowcrete" White Portland Cement in 1-cwt. paper bags free (non-returnable) 1 ton and upwards site 8 15 0

Super Cement (Waterproof) paper bags free	3 9 0
Roman Cement	6 15 0
Parian Cement	6 0 0
Keene's Cement, White	6 0 0
" " Pink	5 12 6

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	2 17 0	Sirapite, Coarse	3 5 0
" White	3 10 0	" Finish	3 13 0
Pioneer	3 13 0		
Super Carbo	2 7 6	4-ton loads & over London Area, paper bags free.	
Carbo Setting	2 12 6		
Best Ground Blue Lias Lime	1 17 6	Grey Stone Lime	2 2 0
		Chalk Lime	2 2 0
Granite Chippings	1 12 0	Hair per cwt.	2 2 6

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d., if returned in good condition within three months, carr. paid.

Stourbridge Fireclay in sacks 37s. 0d. per ton at rly. dep.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 2 10

BEER STONE—RANDOM BLOCK—
Free on rail at Seaton Station, per ft. cube 2 3
Delivered free on rail Nine Elms, S.R. per ft. cube 3 1½
Selected approximate size one way, 1d. per cubic ft. extra; selected approximately three sizes or for special work, 3d. per cubic ft. extra

PORTLAND STONE—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube 4 4½
Do. do. delivered on road waggons at above stations, per ft. cube 4 5½
White basebed, 3d. per ft. cube extra.
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. average, and ¼d. beyond 30 ft.

HOPTON-WOOD STONE—

	s. d.
F.O.R. Quarries, Wirksworth, Derbyshire	14 0
Random blocks from 10ft. and over P.ft.cb.	22 6
Sawn two sides	27 9
Sawn three or four sides	3 11

CHILMARK—RANDOM BLOCK—
At Nine Elms, per ft. cube

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super)	Per ft. super	5 6
6 in. rubbed two sides, ditto	"	6 0
3in. sawn two sides slabs (random sizes)	"	2 3½
2in. to 2½in. sawn one side slabs (random sizes)	"	1 6½
1½ in. to 2 in., ditto	"	1 3½

HARD YORK—
Delivered at any Goods Station, London.

Scappled random blocks	Per ft. cube	6 3
6-in. sawn two sides landings to sizes (under 40 ft. super)	Per ft. super	5 1½
6 in. rubbed two sides, ditto	"	6 1½
4 in. sawn two sides slabs (random sizes)	"	3 1½
3 in. ditto ditto	"	2 8
2in. self-faced random flags	Per yd. super	7 6

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Sills, 10s. 0d.

SOFT WOOD.

GOOD BUILDING DEAL.

Inches.	Per stan.	Inches.	Per stan.
4 × 11	£23 10	3 × 6	£18 10
4 × 9	22 10	3 × 11	19 10
4 × 8	21 0	2 × 11	19 10
4 × 7	19 0	3 × 9	19 10
3 × 8	17 10	2½ × 9	19 10
3 × 7	18 0	3 × 4½	17 10
2½ × 7	18 0	3 × 4	17 10

PLANED BOARDS.

1 × 11	£22 10	1 × 9	£21

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	16/-	1½	25/-
¾	17/-	1¼	31/6
1	19/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.	Inches.	per sq.
1	21/-	¾	16/-
1¼	26/-	¾	18/6
1½	32/6	1	22/6

MATCHING (BEST).

SAWN LATHS.

	s. d.
1¼ in. BATTENS.	
¾ × 2 per 100 ft.	2 6
Per bundle	2 9

HARD WOOD.

1 INCH AND UP THICK.

	£ s. d.
Average price for prime quality.	
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 10 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt. ..... 4 7 0 to	5 10 0

HUDDERSFIELD
Building Society

Experience has shown that the arrangements made by the Huddersfield to assist occupier borrowers have given the utmost satisfaction, and the service rendered has been greatly appreciated by builders' clients.

Write for the Folder "Mortgage Facilities" to The Huddersfield Building Society, Britannia House, 203, Strand, London, W.C.2, or to the Head Office, Britannia Buildings, Huddersfield. Andrew Stewart, C.A., Managing Director.

WHEN YOU INVEST—A HOUSE IS BEST!

SLATES.

First quality slates from Bangor or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	29 15 0	18 by 10 ...	15 12 6
22 by 12	25 0 0	18 by 9	13 15 0
22 by 11	22 10 0	16 by 10 ...	13 10 0
20 by 12	22 0 0	16 by 8	10 7 6
20 by 10	19 7 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000 f.o.r. London.

		£ s. d.
Best machine-made tiles from Broseley or Staffordshire district		4 2 6
ditto hand-made ditto		4 10 0
Ornamental ditto		4 15 0
Hip and valley tiles (per dozen)	Hand-made	0 8 0
	Machine-made	0 8 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£13 10 0
Plain Compound Girders	16 0 0
" Stanchions	18 0 0
In Roof Work	20 0 0

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	14 5 0	⅝ in. to ¾ in.	12 15 0
½ in.	13 5 0	¾ in. to 2½ in.	12 5 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars Sizes ¼in. to 6in. %	Genuine Wrot. (Puddled) Iron Tubes and Tubulars Sizes ¼in. to 6in. %	Standard Fittings Sizes ¼in. to 6in. %	Standard Flanges Sizes ¼ in. to 6in. %
Gas	65	52½	57½	70
Water	61½	48½	52½	65
Steam	57½	45	47½	60
Galv. gas	52½	40	47½	60
Galv. water	47½	35	42½	55
Galv. steam	42½	30	37½	50

C.I. HALF-ROUND GUTTERS—London Prices ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/5½	1/1½	4½d.
3½ in.	1/6½	1/3	5½d.
4 in.	1/6½	1/4½	6½d.
4½ in.	1/8	1/6	9½d.
5 in.	1/10½	1/8	10d.

O.G. GUTTERS.

3 in.	1/7½	1/5½	7d.
3½ in.	1/9½	1/5½	7½d.
4 in.	1/11	1/6	8½d.
4½ in.	2/-	1/9	9½d.
5 in.	2/4½	2/0	11½d.

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock Branches, angles, stock angles.
2 in.	2/2½	1/4½ 2/0
2½ in.	2/3½	1/6½ 2/4½
3 in.	2/9½	1/11 2/10½
3½ in.	3/3½	2/3½ 3/3½
4 in.	3/9	2/9 4/0½

Less 20 per cent. trade discount.
Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Stock, Bends, stock Branches, angles, stock angles.

	Pipe.			
	s. d.	s. d.	s. d.	
2in. per yd. in 6 fts. ...	2 9½	2 0	2 5½	
2½in. " ...	3 2	2 2½	3 0½	
3in. " ...	3 6	2 5½	3 7½	
3½in. " ...	3 9½	3 0½	4 2½	
4in. " ...	4 2½	3 4½	4 10½	

L.C.C. COATED DRAIN PIPES.—London Prices ex Stock

	Pipe.	Bends, stock Branches, angles, stock angles.	
	s. d.	s. d.	s. d.
3in. per yd. in 9ft. lengths	3 4½	4 6	7 0
cwt. qr. lbs.			
4 in. " 1 1 20...	5 1	5 9	8 6
5 in. " 1 2 22...	6 6	8 9	13 9
6 in. " 2 0 6...	7 6	10 3	18 0

Gaskin for jointing 41/- per cwt.

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common Bars	10 0 0	to	10 10 0
Staffordshire Crown Bars—			
Good merchant quality	11 0 0	to	11 10 0
Staffordshire Marked Bars	14 10 0	...	15 10 0
Mild Steel Bars	9 10 0	...	10 10 0
Steel Bars, Ferro-Concrete quality, basis price	9 0 0	...	9 10 0
Hoop iron, basis price	11 10 0	...	12 10 0
" Galvanised	28 0 0	...	29 0 0

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*Contd.*).

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Soft Steel Sheets, Black—			
Ordinary sizes, to 20 g.	11 10 0	...	12 0 0
" " 24 g.	12 10 0	...	13 10 0
" " 26 g.	14 10 0	...	15 10 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 8 ft. to 22 g. and 24 g.	15 0 0	...	16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 8 ft. to 26 g.	17 10 0	...	18 10 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	14 0 0	...	15 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	16 10 0	...	17 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	17 10 0	...	19 0 0
Sheets, Galvanised, Flat, Best quality—			
Best Soft Steel Sheets, 6 ft. by 2 ft. to 8 ft. to 20 g. and thicker	15 10 0	...	17 10
Best Soft Steel Sheets, 22 g. and 24 g.	16 0 0	...	18 0 0
Best Soft Steel Sheets, 26 g.	17 10 0	...	19 10 0
Cut Nails, 3 in. to 6 in.	16 10 0	...	18 0 0
(Under 3 in. usual trade extras.)			

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	0 11
Strong sheet	"	1 0
Thin	"	1 1
Copper nails	"	1 1
Copper wire	"	1 1

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	200/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/-	60/-	116/6 per doz.

CAPS AND SCREWS.

1½ in.	1¾ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH GLASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.
3 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
3 lbs. S. traps	35/-	45/-	66/-	126/ per doz.

TIN.—English ingots, 2/6 per lb. **SOLDER.**—Plumbers' 1/1, Tinmen's 1/3, Blowpipe 1/4 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil, in pipes ... per gallon		0 3 0
" " in barrels ... "		0 3 2
" " in drums ... "		0 3 4
Boiled " " in barrels ... "		0 3 5
" " " in drums ... "		0 3 7
Turpentine, in barrels ... "		0 3 9
" in drums (10 galls.) "		0 3 11
Genuine Ground English White Lead, per ton		51 0 0
(In not less than 5-cwt. casks.)		
Extra for 1-cwt. kegs over 5-cwt. casks is 2/9 cwt.		

GENUINE WHITE LEAD PAINT.

	£ s. d.
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganwyte," "Polaco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots per ton delivered	70 0 0
Read Lead, Dry (packages extra) ... per ton	37 0 0
Best Linseed Oil Putty ... per cwt.	0 13 0
Size. XD quality ... fkn.	0 3 6

LEAD, &c.

(Delivered in London.)	Per ton £ s. d
LEAD.—Sheet, English, 4 lb. and up	26 15 0
Pipe in coils	26 5 0
Soil pipe	32 0 0
Compo pipe	32 5 0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra, and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ... per ton } £16 5 0

VARNISHES, &c.

		Per gallon.
Oak Varnish	Outside	0 14 0
Fine Do.	Do.	0 16 0
Fine Copal	Do.	0 18 0
Pale Copal	Do.	1 0 0
Pale Opal Carriage	Do.	1 4 0
Best Do.	Do.	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	Do.	0 18 0
Fine Copal Cabinet	Do.	1 2 0
Fine Copal Flatting	Do.	1 0 0
Hard Drying Oak	Do.	0 18 0
Fine Hard Drying Oak	Do.	0 19 6
Fine Copal Varnish	Do.	1 0 6
Pale Do.	Do.	1 12 0
Best Do.	Do.	1 2 6
Best Japan Gold Size		0 12 6
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent)		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers in Terebene		0 9 0
Cuirass Black Enamel		0 7 0

GLASS

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY & SELECTED GLAZING QUALITY.

per ft. super.		per ft. super
15 oz. O.G.Q.	2½d.	32 oz. O.G.Q. 6½d.
15 " S.G.Q.	2¾d.	32 " S.G.Q. 7¼d.
21 " O.G.Q.	3¼d.	Obscured Sheet, 15 oz. 3¼d.
21 " S.G.Q.	3¾d.	" " 21 " 4¼d.
26 " O.G.Q.	4¼d.	Fluted, 15 oz. 6¼d., 21 oz. 9d.
26 " S.G.Q.	5d.	Em'lld 15 oz. 4¼d., 21 oz. 5¼d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
Rolled plate ¼ in.	4½d.
Rough rolled, ⅜ in.	5½d.
Rough rolled, ½ in.	5½d.
Figured, Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Do. tinted	8d.
Rolled Sheet	5d.
White Rolled Cathedral	5d.
Tinted Do.	7½d.
Cast plate is same price as rough rolled.	

	per ft. s. d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	0 8½
Wired Rolled, ¼ in. thick	0 8½
Wired Cast, ¼ in. thick	0 8½
"Calorex" Sheet, 21 oz.	2 3
Do do. 32 oz.	3 9
Do. Cast, ¼ in. thick	0 8
Do. do. ⅜ in. thick	0 9
Do. do. ½ in. thick	0 10

"VITA" GLASS.

Clearsheet—not exceeding 1 foot	1 0
Do. do. 2 feet	1 3
Do. over 2 feet	1 9
Polished plate not exceeding 1 foot	1 6
Do. do. 2 feet	3 0
Cathedral—not exceeding 1 foot	1 0
Do. larger sizes	1 6
Horticultural Sheet and Cathedral "Vita" Glass. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1 6
3/16 in. Wired Georgian Design. Sizes up to 98 inches long by up to 24 inches wide	2 6

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from February 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A¹	A²	A³	B	B¹
Craftsmen	1/7	1/6½	1/6	1/5½	1/5	1/4½
Labourers	1/2½	1/1½	1/1½	1/1	1/0½	1/0½

Aberdeen	A	Dundee	A	Hawick	A²
Airdrie	A	Dunfermline	A	Helensburgh	A
Alexandria	A	Dunoon	A	*Inverness	B
Arbroath	A	East Lothian	A	Kilmarnock	A
Ayrshire	A	Edinburgh	A	Kincardineshire	A
Bathgate	A	Falkirk	A	Kinross-shire	A
Bo'ness	A	Forfarshire	A²	Kirkcaldy	A
Broughty Ferry	A	Fort William	B	Lanarkshire	A
Clackmannanshire	A	Galashiels	A²	Leith	A
Coatbridge	A	Glasgow	A	Midlothian	A
Dumbartonshire	A	Greenock	A	Motherwell	A
Dumfries	A²	Hamilton	A	Peeblesshire	A²
Dumfriesshire	A				

Perth	A
Perthshire	A²
Peterhead	A²
Renfrewshire	A
Rothesay	A
Roxburghshire	A²
St. Andrews	A
Selkirkshire	A
Stirling	A
Stirlingshire, West	A
West Lothian	A
Wishaw	A

The information given in this table is copyright. *Slaters and Plumbers have special rate of 1/5½; and Labourers 10d. to 1/-. The rates of wages in various towns in England and Wales are given on page 803.

THE SCOTTISH BUILDER

NEW BUILDINGS

ABERDEEN.—BUILDING.—The B.B.C. are to build a new station in Aberdeen.

ALLOA.—RECONSTRUCTION.—Plans are in hand for a scheme of reconstruction and restoration, etc., to St. Mungo's, the Parish Church. Mr. Leslie G. Thomson, architect, 8, Ainslie-place, Edinburgh.

AYR.—DAM.—The T.C. has appointed Sir Alexander Gibb and Partners, of London, S.W.1, to prepare plans for the construction of a dam across the River Ayr.

BELLSHILL.—BATHS.—The Lanarkshire C.C. have a scheme under consideration for new public baths and swimming pool, from plans by the County Drainage Engineer, Mr. Thomas Stephens, Hamilton.

BO'NESS.—HOUSES.—The T.C. have decided to borrow £11,500 for the erection of 28 houses.

CLYDEBANK.—HOUSING.—The Housing Committee of the T.C. have recommended that the following number of houses be erected on Mount Blow housing site: 300 of three apartments, 250 of four apartments, and 100 of five apartments.

CRIEFF.—HOUSES.—Plans are in hand for 32 three- and four-apartment houses at Crofton-approach. Mr. D. P. Beattie, Burgh Architect, prepared the plans.

DUNDEE.—BUILDINGS.—Plans and sections of the following proposed new buildings, etc., have been lodged at the office of the City Engineer: Esplanade, Barnhill—shelter, for the T.C.; Murraygate and Panmure-street—alterations for Marbury Estates Trust, architects, Dugdale and Ruhemann, London; and 31, Wellington-street—alterations, for J. B. Woods, architect, James Clunie, 5, Kirkton-road.

DUNDEE.—EXTENSION.—Dundee and Fife County Authorities have decided to carry out a joint scheme of extension to the Baldovan Mental Institution.

DUNFERMLINE.—BUILDING.—The Dean of Guild Court passed plans by Messrs. W. Alexander and Sons, 'bus proprietors, for the erection of recreational premises for the employees at their Dunfermline Depot. The building will be situated in the grounds of the company's depot at St. Leonard's.

DUNOON.—BUILDING.—The Dean of Guild Court have granted Mr. G. Jones, Glenmorag Hotel, permission to add 50 bedrooms and a recreation hall to their premises, at a cost of £6,000, while Mrs. Teresa Beyers, Mount Carmel, Kirn, was granted permission to add eight bedrooms. The Town Council will shortly start with the erection of 48 houses at Alexander-street.

EDINBURGH.—BUILDING.—A scheme is to be carried out at the Donaldson Hospital by the Edinburgh Education Endowment (Scotland) Commissionaires by the erection of a new school and reconditioning the hospital buildings.

FORT-WILLIAM.—BUNGALOW.—The Corporation intend to erect 20 bungalows.

GLASGOW.—EXTENSIONS.—The Corporation are to carry out a scheme of extensions to the Govan Baths in Summertown-road, at £24,117.

GLASGOW.—BROADCASTING STATION.—Plans for the new broadcasting station in Queen Margaret's College have been prepared by Mr. James Miller, 15, Blythswood-square, Glasgow. Mr. Ainslie is the measurer and Mr. Tudsbury, M.Inst.C.E., the engineer, and the contract for the excavation work has been placed with Messrs. Shaw and Campbell, of Glasgow.

GLASGOW.—FIRE STATION.—Sketch plans have been prepared for the Corporation by Mr. Thomas Somers, architect, Office of Public Works, for a £70,000 fire station at Montgomerie-street, and the Corporation have instructed the architect to prepare the working plans.

GREENOCK.—HOUSING.—Included in the housing contracts which the Department of

(*Continued on page* 812.)

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	8	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	3
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundations 1 to 6	per yard cube	24	0
Add if in underpinning in short lengths	" "	5	0
Add if in floors 6 in. thick	" "	2	0
Add if in beams	" "	2	6
Add if aggregate 1 : 2 : 4	" "	8	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	1	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	26	0	0
Add if in stocks	"	6	0	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	5	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	0	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	5	9

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	0	11
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	0

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	9
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	15	6
Chilmark stone fixed complete	" "	13	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	70	0
Do. 20 in. × 10 in. Do. Do.	"	71	6
Do. 24 in. × 12 in. Do. Do.	"	73	6

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	3	6
Do. joists	" "	4	0
Do. roofs, floors and partitions	" "	4	6
Do. trusses	" "	6	9

	¾"	1"	1¼"	2"
Deal rough close boarding per sq.	30/-	35/-	43/-	70/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	0	8
Centre for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

	¾"	1"	1¼"	1½"
Deal-edges shot per sq.	—	38/-	45/-	52/-
Do. tongued and grooved "	—	43/-	50/-	58/-
Do. matchings "	40/-	45/-	—	—
Moulded skirtings, including backings and grounds per ft. sup.	1/4	1/7	1/9	2/3

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	9
Two Do. Do. Do.	" "	2	0
Add for fitting and fixing	" "	0	2
Deal cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double-hung, double hung with pulleys, lines and weights, average size		3	3

DOORS.

	1½"	1¾"	2"
Two-panel square framed per ft. sup.	2/1	2/3	2/5
Four-panel Do. "	2/4	2/6	2/9
Two-panel moulded both sides "	2/6	2/9	2/11
Four-panel Do. Do. "	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	12	0

	1"	1¼"	1½"
Plain deal jamb linings framed per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers "	1/2	1/4	1/7
Add if cross-tongued "	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/-	2/3	2/8	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/3	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. x 1¼ in.	per ft. run	0	9
Mahogany handrail, average 3 in. x 3 in.	" "	5	6
Add if ramped	" "	11	0
Add if wreathed	" "	22	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	15	0
Plain compound girders	"	18	0
Do. stanchions	"	20	9
In roofwork	"	26	6

RAIN-WATER GOODS.

	3"	4"	5"	6"
Half-round plain rebated joints ft. run	1/-	1/1	1/3	1/6
Ogee Do. do. "	1/2	1/3	1/9	2/3
Rain-water pipes with ears "	1/3	1/10	—	—
Extra for shoes and bends each	2/9	3/11	—	—
Do. stopped ends "	1/1	1/4	1/9	2/6
Do. nozzles for inlets "	2/2	2/7	3/7	4/-

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	35	6
Do. do. flats	"	34	6
Extra labour and solder in coated cesspools	each	6	0
Welt joint	per ft. run	0	4
Soldered seam	" "	1	6
Copper nailing	" "	0	3

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run	10½	1/2	1/9	2/5	3/-	—
Do. service "	1/3	1/8	2/2	3/2	—	—
Do. soil "	—	—	—	—	—	6/-
Bends in lead pipe each	—	—	—	—	2/3	5/6
Soldered stop ends "	0/7	0/11	1/3	2/-	2/6	—
Red lead joints "	0/9	0/10	1/1	1/7	1/10	3/6
Wiped soldered joints "	2/-	2/6	2/9	3/5	4/3	6/-
Lead traps and cleaning screws "	—	—	—	10/-	13/-	—
Bib cocks and joints "	6/-	9/-	13/-	—	—	—
Stop cocks and joints "	10/6	12/6	17/6	50/-	—	—

PLASTERER.

			s.	d.
Render, float and set in	lime and hair	per yard sup.	2	0
Do. Do.	Sirapite	" "	2	3
Do. do.	Keen's	" "	3	0
Add saw lathing		" "	1	4
Add metal lathing		" "	2	4
(Not including hangers or runners, etc., for suspended ceilings.)				
Portland cement screed		" "	1	7
Do. plain face		" "	3	3
Mouldings in plaster		per 1 girth	0	1½
One-and-a-half granolithic pavings		per yard sup.	4	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	6½
26-oz. Do.	" "	0	7½
Obscured sheet	" "	0	8
¼-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10
¼-in. wired cast plate	" "	1	1

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	7½
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	3
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	2
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece 2/- to 4/-		

*These prices apply *to new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Act, and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW BUILDINGS IN SCOTLAND

(*Continued from page* 810.)

Health have authorised the Corporation to accept, is a three-story tenement block, known as a radiating block, and so named because three wings radiate from a central staircase, well lighted at three angles. Each wing contains two houses on each floor, and every house is assured of any sunlight there is at some part of the day. Mr. Frank Mears, F.R.I.B.A., 44, Queen-street, Edinburgh, is the architect.

GREENOCK.—RECONSTRUCTION.—The Harbour Trust has decided to invite tenders for the reconstruction of the eastern section of the south quay of the East India Harbour.

KIRN.—EXTENSION.—The Argyllshire E.C. have decided to carry out an extension to the public school at £4,000.

KELSO.—SCHOOL.—Sketch plans have been prepared by Roxburghshire Council's architects for a school which it is intended to erect on a site at Croft Home, at £48,750.

KINGLASSIE.—HOUSES.—Plans are in hand by Messrs. Williamson and Hubbard, architects, Royal Bank-buildings, High-street, for 44 houses for which Messrs. Douglas and Son, 15, East-port, Dunfermline, are the measurers.

KIRKCALDY.—MUNICIPAL BUILDINGS.—A £123,000 scheme for new municipal buildings is contained in a report which has been furnished by Mr Thomas S. Tait, F.R.I.B.A., of Sir John Burnet, Tait and Lorne, London, to the Provost's Committee. The Corporation acquired the house and grounds of Wemyss Park for the purpose of erecting new municipal buildings.

LANARK.—BRIDGEWORK. — The County Road Board have accepted the tender of Messrs. Hugh Leggatt, Ltd., Barrhead, amounting to £26,803, for the diversion and new bridge at Craigbridge, near Strathavon.

LANARKSHIRE. — BUILDING. — The C.C. Town Planning Committee has approved of the following plans:—Glasgow Corporation—nurses' home at Gartloch Mental Hospital, Gartloch; Henry Boot (Garden Estate), Ltd., Baillieston—96 houses at Garrowhill Garden estate, Baillieston; and Scottish Community Service Council—community service centre at corner of Morriston-street and Monkcastle-drive, Cambuslang.

LARGS. — RECONSTRUCTION.—Plans have been prepared by Mr. Thomas McLaughlan, architect, Ayr, for a large scheme of reconstruction and additions to the mansion house as a new hotel, to be known as "The Hollywood Hotel." The scheme, which has been promoted by Mr. Robert Davidson, Glasgow, will cost £30,000.

LAURENCEKIRK. — HOUSING. — Messrs. Walker and Duncan, civil engineers and architects, 3, Golden-square, Aberdeen, have in hand the plans for a scheme of houses in Cairnview-road for the T.C.

LERWICK. — HOUSES. — The T.C. has reached an agreement to purchase two parks to the north of Hayfield House, on which 100 houses will be built. On their own property at Clickamin 80 houses will be built.

LOCHGELLY.—HOUSING.—The T.C. decided on the type of houses to be erected at the Lumphinnans-road new housing scheme. There will be 26 five-apartment cottage type houses and 42 four-apartment cottage type houses.

RUTHERGLEN.—HOUSES.—The T.C. has decided to proceed with 66 houses at Ewing-street, adjacent to the present Bankhead scheme, and ground has also been acquired at Gallowflat to build another 204 houses.

STRANRAER. — OFFICES. — Plans were passed by the Dean of Guild Court for a new garage and suite of offices for the Caledonian Omnibus Co. The estimated cost is £6,000, and accommodation will be for forty 'buses.

TURRIFF.—BUILDING.—Mr. W. L. Duncan, F.R.I.B.A., of Turriff, is architect for the new nurses' block to be erected at the Hospital.

WEST CALDER.—HOUSES.—The Midlothian C.C. has accepted tenders for the erection of 176 new houses at West Calder. There will be 63 of three partments, 92 of four apartments, and 20 of five apartments. The estimated cost of the scheme is £78,141.

TRADE NEWS

Jersey Builders.

Owing to rapidly increasing business, Messrs. Hardars, Ltd., building contractors, of 20, Hill-street, have removed to more spacious premises—11, Caledonia-place, Pier, Jersey. 'Phone: Central 2121.

Patents and the I.F.S.

We have received from a firm of patent agents in Dublin a copy of a pamphlet on "Industrial Development in the Irish Free State," relative to patents, designs and trade marks. This should be of interest to companies entering into the Irish market.

Cement Company's New Works.

The Rugby Portland Cement Co., Ltd., announce that their address is Crown House, Rugby, with telephone number Rugby 2233 (10 lines), and telegraphic address "Cement, Rugby." The company's works are at New Bilton, Rugby; Southam, near Rugby; and Halling, near Rochester.

Asbestos-Cement Products.

British Standard Specification No. 690-1936 has recently been issued by the British Standards Institution, and there is a widespread desire on the part of the industry to see its adoption throughout the trade. Among those firms whose products are manufactured strictly in accordance with this Specification is Turners' Asbestos Cement Co., of Trafford Park, Manchester.

Import Duties Advisory Committee.

The Import Duties Advisory Committee give notice, in connection with the anticipated review of certain trade agreements, of applications for increases in the import duties on the following articles: Softwood planed or dressed boards (including weatherboards, floorings, matchings, and skirtings), whether processed in various ways or not; Boxboards (other than plywood boxboards); wood flour; and sodium chlorate. Any representations should be addressed in writing to the Secretary, Import Duties Advisory Committee, Shell-Mex House, Strand, London, W.C.2, not later than November 5 next.

Lengthening the Life of the Cylinder.

A new process which is claimed to reduce engine wear in Diesel-engine cylinders is announced by Messrs. R. A. Lister and Co., Ltd., of Dursley (Glos.). The process, which is claimed to give four times the wear resistance of ordinary commercial cylinders, has been registered under the name of "Listard," and reduces cylinder wear to a minimum. In view of the importance of the invention to the engineering industry, Messrs Lister's have decided to make available the results of their experience to any British Diesel-engine manufacturer taking up a licence.

An Electrical Centre.

A new industrial electrical centre was opened by Lord Delamere on October 8. Known as the Mortimer Gall Electrical Centre, with headquarters at 115-117, Cannon-street, E.C.4, it aims at dealing with the problems of correct lighting and heating from an entirely new angle. The intention of the founder, Mr. J. Mortimer Hawkins, is to give expert advice to factories and business firms, based on long research about lighting, heating and other equipment. Many new kinds of electrical equipment can be seen at the centre, but before a single fitting is sold clients will receive a comprehensive plan, the carefully considered outcome of an inspection of their premises and an examination of their problems and requirements.

"Insulated Windows."

A brochure on "insulated windows" has been produced by Messrs. Avery and Vincent, Ltd., of Hartington-road, Southall. "A and V Insulated" windows are claimed by their makers to possess the following advantages: Easiness of handling, storing and building-in; glazing to wood instead of metal; minimum variation in glass sizes; they are supplied complete with bronze finish fittings and in standard sizes, ensuring prompt delivery; delivery primed and free to site; and economy in price. By virtue of no interior metal surfaces other than fittings, condensation is reduced to a minimum. By reason of their patented construction the glazing frames are claimed to be much stronger than steel or wood sashes; they will not warp, swell or shrink, and in consequence they overcome the annoyance of jammed and ill-fitting sashes.

Valves for Tanks.

The South African Railways and Harbours recently placed an order with Messrs. Braithwaite and Co. (Engineers), Ltd., for seven Braithwaite pressed steel tanks with supporting structures. All these tanks are fitted with Ismailia valves. This type of valve, which is entirely British in design and manufacture, has been used both by the South African Railways and Harbours and by other important users for many years, and the number of repeat orders received is good evidence of its merits and advantages. Briefly, the principal advantages may be summed up as follows: (1) Extreme simplicity in construction and operation; (2) absence of all leakage; (3) reliability with instant opening to full flow. These valves are made and supplied by the Ismailia Valve Company, 17, Victoria-street, London, S.W.1, who will be glad to furnish any further information.

Metal-faced Plywood.

Venesta, Ltd., have issued an extremely well-produced brochure entitled "Facts about Plymax," which, after reading, we consider should be of considerable value to designers as a book of reference. As many architects already know, "Plymax" is plywood covered on one or both sides with metal sheets. The metals used are galvanised steel, copper, aluminium, bronze and stainless steel. Rigidity, flatness unaffected by humidity or temperature changes and durability are qualities possessed by this material, and its uses are many. They include partitioning for lavatories, shower cubicles, dressing-boxes; doors, both internal and external; constructing pavilions, kiosks and even larger buildings; and the hundred and one requirements of shopfitting. These and many other uses are illustrated by working details and photographs, and all technical data necessary to the architect are contained in the brochure. A copy will be sent upon request to Vintry House, Queen-street-place, London, E.C.4.

HOUSE DRAINAGE EQUIPMENT.

Under the title of "House Drainage Equipment and Supplies," Messrs. Young and Marten, Ltd., Caledonian Works, Stratford, E.15, have issued a booklet which should be of considerable value to builders. Compiled by Mr. E. Montague Edwards, of the company, this publication gives by means of illustrations and data an extremely comprehensive idea of the stocks held by this old-established firm in this direction alone. A synopsis of the sections indicates the range of the booklet:—Progress and development; head establishment, Stratford; the "Infrangible" automatic locking arrangement for surface plates; hinged, locking, and removable manhole covers and frames; unbreakable steel manhole covers and frames; cast-iron manhole covers and frames for light, medium and heavy service; double and grease seal manhole covers and frames; cast-iron and steel non-rocking road manhole covers and frames; street and air gratings, pavement gutters; cast-iron drain pipes and connections; cast-iron house drainage fittings; fresh air inlets, branch degrees and "melt-on" ears; standard list of rain water and soil goods with special gutters; the "Infrangible" and other coal plates and picture of stability; pre-cast concrete pipes and "Waterhouse" inspection chambers; glazed stoneware waste receivers and adjustable gullies; standard list of glazed stoneware pipes and fittings, with accessories; and joinery mill and timber stocks. Additional drawings and illustrations aid in lending interest to this publication. A copy will be forwarded free from the company upon mentioning this journal.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government Departments.*

Aberdeen.—New baths at Justice Mill, for the T.C. :—

Excavator, mason, brick, concrete, etc.—
*Adam Birnie, Aberdeen £19,350

Reinforced concrete—
*Clark & Chapman, Aberdeen 14,965

Asphalt—
*James Scott & Son, Ltd., Aberdeen ... 2,423

Alfreton.—Hotel on the site of the existing "Travellers' Rest Inn," for Messrs. Home Brewery Co., Ltd., Daybrook Brewery, Nottingham. Mr. H. Tatham Sudbury, architect, Rutland-chambers, Lord Haddon-road, Ilkeston :—

*H. Blythe & Son, Mansfield £8,000

Athlone.—62 houses, for the U.D.C. :—

*Concannon & Son £15,954

Athy.—Twenty-five houses in Geraldine-road, for the U.D.C. :—

*D. & J. Carbery, Athy £6,258

Bacup.—Garage and petrol-filling station in Bacup-road, Waterfoot, for Mr. C. H. Nuttall, motor engineer, Warth House, Waterfoot. Messrs. A. Brocklehurst, F.R.I.B.A., architect, St. James-chambers, Waterfoot :—

*Direct labour.

Bacup.—Supply of windows for 110 houses on the Thorne estate, for the T.C. Mr. H. Guflogg, Borough Surveyor :—

*C. W. Norris, Ltd., Farnworth £616 5

Bakewell.—Eight houses, including road works, at Youlgreave, for the R.D.C. Mr. G. V. Saynor, architect, 4, Grove-parade, Buxton :—

*M. J. Gleeson, Ltd., Sheffield £2,918

Bath.—Works, for the T.C. :—

Demolition of 18, 19 and 19a, Westgate-street—
*A. Wilis & Sons, Ltd.

Works at West Tiverton school extension—
Floor coverings—
*Korkoid Decorative Floor Co. £132 18 6
Steel casements—
*John H. Pye, Ltd. 720 9 0
Sanitary fittings—
*J. A. Bladwell, Ltd. 258 10 10
Electrical work—
*C. P. Vanstone 676 0 0
Cloakroom fittings—
*S. Parkes & Co., Ltd. 145 0 0
Heating—
*Dicks, Ltd. 972 0 0

Changing-rooms at gymnasium, Oldfield Park—
*G. Burden £234

Wall tiling, partitions and flooring at Mount-road convenience—
*Craven, Dunhill & Co., Jackfield, Shropshire £220

Heating system for the art gallery and libraries—
*A. Scull & Son, Ltd. £627 18

Belfast.—Model school at Cliftonville to accommodate 1,000 pupils, for the E.C. :—

*T. M'Kee & Sons, Belfast.

Beverley.—42 non-parlour houses on the Mill-lane housing estate, for the T.C. :—

*Tarran Industries, Ltd., Hull £12,308 15

Birchfield.—New branches in Walsall-road, for the Birmingham Co-operative Society, Ltd., High-street, Birmingham. Plans by the Architects' Department, Holt-street :—

*Building Dept., Holt-street, Aston, Birmingham.

Birmingham.—Public baths at Kingstanding, for the Corporation. Messrs. Cherrington & Stainton, FF.R.I.B.A., architects, 133, Edmund-street :—

*C. Bryant & Son, Ltd., 55-65, Whitmore-road, Birmingham, 10.

Birmingham.—Block of offices and shops in Temple row, for Messrs. Bell & Nicholson :—

Building contractor—*Percy W. Cox, Handsworth.
Constructional steelwork contractors—*E. C. Keay & Co.
Cement—*Nelson Cock brand.
Asphalt—*Val de Travers.
Floors—*Siegwart Floors.
Central heating—*Midland Ventilation Co.
Electrical Installation—*Walker Bros. (Electrical Engineers), Ltd.
Plumbing—*David F. Wiseman & Sons.
Reconstructed stone and granolithic — *Lyne & Son.
Plastering—*George Prince, Ltd.
Scaffolding—*Scaffolding (Gt. Britain), Ltd.
Whitbed Stone — *Bath & Portland Stone Firms, Ltd.
Glazing—*Pearce & Cutler, Ltd.
Granite and marble—*W. H. Fraley & Son, Ltd.

Birmingham.—Four-story factory building on the site of the old Sphinx factory in Alcester-street, for Messrs. Fisher & Ludlow, Ltd., Albion Works, Regent-street, Deritend, Birmingham :—

*W. J. Whittall & Son, Lancaster-street, Aston, Birmingham.

Birmingham.—Additions to premises in Heaton-street, for Messrs. J. Rabone & Sons, Ltd. Messrs. Watson & Johnson, architects, 5, Victoria-square, Birmingham :—

*Maddocks & Walford, Tyburn-road, Erdington, Birmingham.

Birmingham.—Pavilion and club-house in Drews-lane, Ward End :—

*A. Wincott.

Birmingham.—Workshop in Linden-road, Bournville :—

*J. E. Harper & Sons, Ltd., Lombard-street, Birmingham.

Birmingham.—Houses in Shutlock-lane, corner of Dads-lane, King's Heath :—

*Atlas Building Co., Frederick-road, Birmingham.

Bishops Stortford.—32 houses, for the U.D.C. :—

‡S. E. Moss & Sons, Chelmsford £11,729 19 7

Blackpool.—Bakery and confectionery department at the Technical College in Park-road, for the E.C. Mr. H. Banks, Borough Engineer :—

*A. Threlfall, Ltd., Leyland, Lancs ... £4,195

Blackpool.—Works for the T.C. :—

Provision of W.I. balustrading, C.I. newel posts and bronze handrail for the Technical College gymnasium—
*Humphries, Jackson & Ambler, Ltd., Manchester.

Provision of artificial stone for the Rossacre school—
*Fleetwood Granite Co., Fleetwood.

Supply and fixing of extensions to the heating apparatus at the bus garage, Rigby-road—
*C. Seward & Co., Ltd., Preston.

Supply of artificial stonework for the Layton Branch Library—
*Concrete Unit Co., Ltd., Traffic-park, Manchester, 17.

Transformer houses at Blackpool-road, Carleton, Sandhurst-avenue, Bispham, and Washington-avenue—
*H. Joyce & Sons, Ltd., Blackpool.

Shelter and conveniences at the recreation ground, Devonshire-road, Bispham—
*H. Joyce & Sons, Ltd.

Boston.—244 houses in Carlton-road and Church-road, and 22 aged persons' homes in Carlton-road, for the T.C. :—

*Mollekin Bros., Maltby £83,506

Bournemouth.—Fibrous plasterwork at Ambassador Hotel, Meyrick-road. Messrs. Rowley & Partners, architects :—

*Allied Guilds, Ltd., Birmingham.

Bromsgrove.—Fencing of site for the proposed Lapal new junior and infants' Council school, for the Worcestershire E.C. :—

*T. Bowen, Ltd., Wolverhampton £271 18 6

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Cannock.—Wiring 36 houses in Moorwood-street, Cannock, four in Heath-street, Hednesford, and 16 in Platt-street, Hightown :—

*H. Corfield, Blackfords £373

Carmarthen.—80 houses on the Parc Bagnall housing estate, also roads, etc., for the T.C. Mr. George L. Ovens, Borough Engineer and Surveyor. Quantities by the Borough Engineer :—

Houses—
‡J. Morgan, Neath £16,570 0 0

Roads, sewers and water mains—
‡T. Walker, Clydach-on-Tawe, Swansea 1,922 9 3

Cleobury Mortimer.—Adaptation of Cleobury Mortimer College for a senior Council school, for the Shropshire E.C. Mr. A. Guy Chant, A.R.I.B.A., County Education Architect, 5, Belmont, Shrewsbury :—

*Turford & Southward, Ltd., Ludlow £1,435 6 11

Clonakilty.—12 houses, for the U.D.C. :—

*C. Cahalane £3,338

Cork.—Light and power installations in the new Municipal School of Commerce :—

*J. D. Carr & Co. £2,274

Crowkerne.—12 houses at Severalls, for the U.D.C. :—

*W. Bridge & Sons £4,650

Darlington.—Gymnasium at St. Mary's R.C. grammar school. Mr. J. Clayton, F.R.I.B.A., architect, High-row, Darlington :—

*Lawson & Boddy, Yarm-road, Darlington.

Diss.—House, for the British Gas Light Co. Messrs. Ernest H. Buckingham and Geoffrey S. Buckingham, architects and surveyors, 28, Tombland, Norwich :—

J. Holmes & Sons, Norwich £1,090 0 0
D. W. Smith & Son, Ipswich ... 1,050 8 10
W. S. Lusher, Norwich 997 0 0
*T. Gill & Son, Norwich 915 0 0

Dublin.—161 flats, for the Corporation :—

James Beckett, Dublin £86,280
J. & R. Thompson, Ltd., Dublin 86,962
Meagher & Hayes, Dublin 86,641
*H. & J. Martin, Ltd., Dublin 77,395

Dukinfield.—70 houses on the Lakes-road South site, for the T.C. Mr. R. M. Stanion, Borough Surveyor :—

*Ashton & Pemberton, Lodge-lane, Dukinfield.

Dun Laoghaire.—146 houses, for the T.C. :—

*Joseph Rooney, Balbriggan £51,108

Dursley.—12 houses at Wotton-under-Edge, for the R.D.C. :—

*F. T. Ranger, Yate £3,870

Edinburgh.—Garage, workshops and other offices at 123 to 125, Fountainbridge, for Messrs. The Eastern Motor Co., Ltd., 52, George-street. Messrs. Oldrieve, Bell & Paterson, architects, 22, Ainslie-place :—

Excavation, brick and mason—*W. J. Henry.
Steel construction—*A. & J. Main & Co., Ltd., Glasgow.
Plumber work and sanitary engineering, etc.—*Patrick Knox & Sons.
Plaster work and lathing, etc.—*J. & J. Johnstone.
Slater—*W. J. Henry.
Joinery, carpentry and ironmongery—*J. Williamson.

(Remainder of Edinburgh.)

Essex.—Works, for the C.C. :—

Reconstruction of the Epping New-road from the "Robin Hood" public-house to the "Wake Arms" public-house—
*W. & C. French, Ltd., Buckhurst Hill £50,353 12

Extensions at Black Notley sanatorium—

	Amount of Tender.	County Architect's Estimate.
Boiler-house and pump-house plant—		
*C. H. Lindsey & Son, Colchester	£3,778	£3,500
Heating and hot-water services—		
*Clark, Hunt & Co., Ltd., London, E.1	7,220	5,400
Electrical installation—		
*Essex Electric Installations, Ltd., Chelmsford	2,000	2,200
Heating installation—		
*F. Davies	145	

Electrical installation in the new Continuation of Treatment (Out-patient) Department, at Little Heath House, Goodmayes—
*A. Satterthwaite, Thundersley £132

Provision of sanitary fittings, etc., for the nurses' home extension at the Oldchurch Hospital—
*Stourbridge Glazed Brick & Fireclay Co., Ltd., Dudley £969 7 2

Mortuary at the Chelmsford Institution—
*H. R. Barber, Writtle £939

Mortuary at the Epping Institution—
*H. R. Barber, Writtle £963

Additions to the cowsheds at Brentwood mental hospital—
*T. Green £922 1 8

Exeter.—New Catholic Church at Topsham, for the Authorities of the Church of the Sacred Heart, South-street. Mr. Wilfred C. Mangan, L.R.I.B.A., architect, 18, Guildhall-street, Preston :—

*C. C. & W. J. Turl, Exeter

Glasgow.—Garage, workshops and offices in Pollockshaws-road. Messrs. Gardner & Thomson, architects, 164, Bath-street :

Excavation, brick and building—*Gavin & Wright, Glasgow.
Steel construction—*Fleming Bros., Glasgow.

Glasgow.—Erection of the Govan-Ibrox baths and washhouse buildings, for the Corporation. Mr. Thomas Somers, architect, Office of Public Works :—

Excavation, brick and mason—
*A. M. MacDougall & Co. £8,446 1 4
Slater work and roughcasting—
*P. White & Co., Ltd. 140 5 1
Joinery, carpentry and ironmongery—
*M. Simpson & Co., Ltd. 2,829 18 6
Plaster work and lathing, etc.—
*J. C. McIntyre & Co., Ltd. 153 2 6
Glazing—
*A. S. Wright & Co., Ltd. 365 17 10
Plumber work and sanitary engineering—
*A. Low & Co., Ltd., Partick 3,461 5 5
Asphalt—
*Scottish Speedwell Co., Ltd. 369 5 1
Tile and terrazzo—
*J. Youden & Co., Ltd. 1,223 16 9
Bath and washhouse engineering—
*H. Twaddle & Sons, Ltd. 7,060 7 8
(All of Glasgow.)

Goole.—Fifty houses on Morley-street, Mount Pleasant-road, and Potter Grange housing estates for the T.C. :—

Building—
*Squires & Sons, Ltd., Selby £16,660 19 2
Electrical—
*R. W. Brown & Co., Hull 340 8 0
Painting—
*J. W. Morrill, Goole 262 10 0
(Subject to M.H. approval.)

Harting (near Petersfield).—Alterations, additions and repairs to Up Park House, for Sir H. Meade-Fetherstonhaugh. Mr. W. A. Forsyth, architect, 12, Stratford-place, London :—

*T. Couzens & Sons, Ltd., West Marden, Chichester.

Hartley Wintney.—Alterations to headworks, for the R.D.C. :—

*W. Haines & Son £1,114 6 6

Hendon.—Branch library in Hartley-avenue, Mill Hill, N.W., for the T.C. Mr. A. O. Knight, M.Inst.C.E., architect, The Burroughs, N.W.4 :—

Gee, Walker & Slater, Ltd. £11,650
Turner & Payne 11,150
S. E. Moss & Sons 10,772
Henry Knight & Son 10,691
Buckingham & Son 10,666
F. R. Freeman, Ltd. 10,623
E. A. Russell, Ltd. 10,593
Davis Estates, Ltd. 10,500
J. H. Dumayne & Co., Ltd. 10,400
E. S. Moss, Ltd. 10,263
Garsubil, Ltd. 10,866
*John Hansard, Ltd., 152-156, Great Portland-street, W.1 9,755

Hendon.—Construction of reinforced concrete subway under Watford Way at the Mill Hill Park footpath crossing, N.W.7, for the T.C. Mr. A. O. Knight, M.Inst.C.E., Borough Engineer :—

C. V. Buchan & Co., Ltd. £6,236
A. Jackaman & Sons, Ltd. 6,227
Insley Contracting Co. 5,985
D. G. Somerville & Co., Ltd. 5,532
Rigg & Remington, Ltd. 5,505
W. & C. French, Ltd. 5,404
Geo. Wimpey & Co., Ltd. 5,276
D. R. Paterson, Ltd. 4,983
C. Carter 4,903
*Howard Farrow, Ltd., Golders Green-road, N.W.11 4,787
E. C. McDermott & Co. 4,643

Higham Ferrers.—Conveniences, for the T.C. :—

*A. J. Potter £302

Huddersfield.—For (a) extensions to Mill Hill isolation hospital, Dalton, and (b) four staff cottages, for the T.C. Mr. W. Jagger, Borough Engineer :—

(a)—
Excavator, etc.—*T. J. & H. Bottomley, Lindley.
Steelwork—*T. Walmsley & Sons, Bolton.
Reinforced concrete and asphalt—*J. Cooke & Sons (Huddersfield), Ltd.
Joiners—*Wrigley & Beaumont, Linthwaite.
Plasterer—*W. E. Jowitt.
Plumbers—*H. Hilton (Nottingham), Ltd., Nottingham.
Slaters—*H. Nelson, Ltd., Bradford.
Painter—*A. Preston.
(b)—*J. T. & H. Bottomley, Lindley.
(Remainder of Huddersfield.)

Hull.—Erection of Cavendish sub-station, for the T.C. :—

*R. W. & J. H. Barnett £501 3 11

Ilkeston.—Eight houses for aged persons at junction of Cavendish-road and Stanton-road, for the T.C. :—

*F. Parks, Nottingham £2,140

Ireland.—The following tenders have been accepted by the Free State Department of Public Works :—

Improvements to Carn National Schools, Co. Sligo—
*J. Henry, Ballaghadereen.
Police station at Dunkineely, Co. Donegal—
*J. Hegarty, Inver.
Improvements to Mullen National schools, Roscommon—
*P. Finan, Castlerea.
Additions and alterations to Office of Public Works—
*A. Hall & Co., Dublin.

Irthlingborough.—14 houses on the Allen-road estate, for the U.D.C. :—

8 houses—
*Thompson & Sons, Irthlingborough ... £2,430
6 houses—
*A. J. Potter & Son, Stanwick 2,030

Kendal.—10 4-bedroom type houses included in scheme No. 15, for the T.C. :—

*Lloyd & Cross, Ltd. ..... £448 per house

Kingstanding.—For the erection of St. Luke's Church in Peckham-road. Mr. J. Percival Hunt, M.Inst., R.A., architect, Lombard House, Great Charles-street, Birmingham :—

*J. R. Deacon, Algernon-street, Lichfield.

Kingston (I.O.W.).—Extension of the generating station, for the Isle of Wight Electric Light & Power Co., Ltd., Union-street, Ryde. Dr. Oscar Faber, D.Sc., M.Inst.C.E., consulting engineer, Romney House, Marsham-street, S.W.1. :—

Piling and foundation works—*Holst & Co., Ltd., 1, Victoria-street, S.W.1.

Leeds.—Alterations and rewiring to electrical installation at York-road baths, and slating and repairs to roofs at Bramley baths, for the T.C. Mr. J. E. Acfield, City Engineer :—

York-road baths—
*Allenby & Stokell, 6 and 7, Grand-arcade, Leeds, 1 ..... £37 11
Bramley baths—
*E. C. Kesteven, Ltd., Nippet-lane, Leeds, 9 ..... 262 10

Leeds.—Additions and alterations to the conveniences at Woodhouse Moor, Camp-road, Kirkstall-road, Gelderd-road and Hunslet-road, for the T.C. Mr. J. E. Acfield, City Engineer :—

*J. Booth & Sons, 88, Beeston-road, Leeds, 11 ..... £1,012 15 6

Linlithgow.—16 additional houses in Preston-road, for the T.C. :—

Brickwork—
—. Stewart, Glasgow £2,345
—. Ramsay, Polmont 2,152
John Malone, Linlithgow 1,953
Joiners—
—. Richardson, Dechmont 1,719
J. White & Son, Linlithgow 1,594
Robert Bennie, Linlithgow 1,471
Slater and harling—
D. Macpherson, Linlithgow 696
G. M. Paris, Broxburn 682
J. K. Millar, Falkirk 634
Plaster and cement—
D. Macpherson 541
G. M. Paris 490
W. B. McNair, Armadale 484
Plumber—
C. Campbell, Whitburn 766
T. Mathieson, Falkirk 750
R. May, Whitburn 737
Painter—
D. Grant & Sons, Linlithgow 129
J. Campbell, jun., Bo'ness 111
Electrical work—
Birrell & Sons, Bathgate 124
—. Edmonton, Glasgow 121
Greig Bros., Bathgate 110

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15, North Audley Street, London, W.1.

Liverpool.—Works, for the Corporation :—

Alterations and additions to 338, Netherfield-road—
*Tysons (Contractors), Ltd. £463
Supplying and fixing wrought-iron boundary railings and gates at the Springwood recreation ground—
*W. A. Parker & Co., Marsh Side-works, Workington £423 15
Interior cleaning, painting and limewashing of St. Martin's Market—
*Geo. Jones and Son, 91, Everton-road, Liverpool, 6 ..... £415
Conversion of the Walton-road industrial school into junior instruction centre—
*Tyson's (Contractors), Ltd. £998
(In lieu of previous tender.)
Branch library in Norris Green—
*Tyson's (Contractors), Ltd., Dryden-street, Liverpool, 5 ..... £9,872
Gymnasium and manual training room at Alsop high school—
*Bragg & Collins £4,878
Assembly hall and gymnasium and manual instruction and metal-work rooms at Quarry Bank high-school—
*Rimmer Bros. (Liverpool), Ltd. £9,120
Hacking and cementing walls, day room and library, Belmont-road institution—
*Wolfe & Rowlands, Liverpool £149
Treatment block at the Fazakerley sanatorium and hospital—
*J. Duthie & Son, Liverpool £7,336
Enlargement of the nurses' home at the Broadgreen sanatorium—
*Tyson's (Contractors), Ltd., Liverpool £3,977
Further 90 flats in Gerard-street—
*Direct labour £41,400
Modernisation of and alterations to the old nurses' home at Smithdown-road hospital—
*R. Wearing & Sons, Liverpool £2,560
Erection of the proposed Leyfield Grange Council school—
*Bragg & Collins £9,827

¶London.—List of new contracts for H.M. Air Ministry for the week ended October 17 :—

Grantham—artificers' works, G. A. Pillatt & Son, Ltd., Nottingham.
Montrose, Angus—hutting—Cowiesons, Ltd., St. Rollox, Glasgow
Longbridge—preparation of landing ground, Ministry of Transport, London.
Bassingbourne, Cambridge—foundation for sheds, M. & F. O. Foster, Hitchin.
Penrhos, Caernarvon—heating and hot water supply, Brightside Foundry and Engineering Co., Birmingham.
Marham—heating scheme, Brightside Foundry and Engineering Co., Birmingham.
Penrhos, Caernarvon—wiring of hutments, B. French, Ltd., Kidderminster.
Waddington—district heating scheme, Brightside Foundry and Engineering Co., Birmingham.
Dengie Flats, Essex—temporary hutting, Whitlock Brothers, Gt. Yeldham.

¶London.—The following works contracts have been placed by the War Office during the week ended October 15 :—

Millbank Barracks, etc.—periodical painting—T. Metcalfe & Sons, Darlington.
Wellington barracks—periodical painting—C. J. Else & Co., Ltd., Matlock.
Rainham Ranges, Essex—erection of bullet catchers—Pavitt Bros., Purfleet.
Dorchester—depot barracks—dining-room and cookhouse block—J. Drewitt & Son, Bournemouth.

¶London.—Tenders accepted by H.M.O.W. for the week ended October 16 :—

Cardiff Welsh Board of Health—heating and hot and cold water—J. G. Proger & Sons, Ltd., 17, St. Andrews-crescent, Cardiff.
Ashton-under-Lyne Employment Exchange and County Court—erection—E. Marshall & Sons, Ltd., Stamford Sawmills, Cockbrook, Ashton-under-Lyne.
Spondon Telephone Exchange—erection—Evans Bros. & Co., Riddings, Alfreton, Derby.
Dover P.O. Garage and Workshop—erection—R. J. Barwick, Market-street, Dover.
Manchester Customs and Excise Office—heating and hot water services—G. Dawson & Sons, 317, Chapel-street, Salford.
Admiralty tables, American oak—The Lord Roberts' Memorial Workshops, 122, Brompton-road, S.W.3.
Clerkenwell Green B.P.O.—alterations—Soole & Son, Ltd., Dunstable Works, Richmond.
Exton T.R.S.—erection—H. G. Ross & Sons, Ltd., Victoria-road, Netley Abbey, Southampton.
Froyle T.R.S.—erection—Walter Read & Sons, Westmeon, near Petersfield.
Buckingham Palace—restoration of stonework to south archway—The Wandsworth Stonemasonry Works, Trollope & Colls, Ltd., 74-84, Wandsworth-road, S.W.8.
Newcastle-on-Tyne Repeater Station—extension—Wm. Jackson, 5, Audley-road, Gosforth, Newcastle-on-Tyne.
M./L. Government Instructional Factory, Redbridge, near Southampton—Dicks, Ltd., 149, High-street, Winchester.
Brighton H.P.O.—internal and external painting—J. Scott Fenn, Ltd., 42, William-street, Woolwich, S.E.18.
H.M. Stationery Office, Shepherdess-walk—erection of electric goods lift—Newbury & Thomas, Lion Works, Wagner-street, S.E.15

London.—Works, for the Islington B.C.:—
40 dwellings on the site of 81, 83 and 85, Crouch-hill—

Henry Knight & Son	£27,806
J. Gerrard & Sons, Ltd., Manchester	26,880
Pitchers, Ltd.	26,790
Speirs, Ltd.	25,520
‡E. S. Moss, Ltd., 159, Brent-street, Hendon, N.W.4	24,600
Gee, Walker & Slater, Ltd.	24,300

29 best quality heavy fireclay slipper baths at £27 1s. 3d. each and 29 solid teak grab rails at 11s. 6d. each at Caledonian-road baths—
*Leeds Fireclay Co., Ltd.
(Remainder of London.)

London.—Pithead baths for the Miners' Welfare Committee, Romney House, Marsham Street, Westminster, S.W.1. Mr. C. G. Kemp, senior architect:—
At Markham Colliery, Staveley Town—
*T. Beighton, Ltd., Brimington, Chesterfield.
At Ravensworth colliery, near Lamesley, Co. Durham, and for the extension at Newbiggin Colliery, near Newbiggin-by-the-Sea, Northumberland—
*Joseph Huntley & Son, Ltd., Villette Joinery Works, Marion-street, Sunderland.

London.—Works, for the Westminster City Council:—
Alterations in the basement of the City Hall to provide temporary accommodation for the Public Health Department—

J. Garlic (1910), Ltd.	£172
Sims & Russell	168
Townsends (Builders), Ltd.	143
*Walter Lilly & Co., Ltd.	137

Repairs and redecorations to dwellings—
Regency-street dwellings—

*Townsends (Builders), Ltd.	£1,795 7

Admiral House—

*Sims & Russell	325 0

Walden House—

*Walter Lilly & Co.	207 0

Grosvenor housing estate—

*Walter Lilly & Co.	2,867 0

Ebury Bridge housing estate—

*Sims & Russell	910 0

London.—Works for the Camberwell B.C.:—
Overground convenience at Cross-road, Peckham Rye—

Thomas Bros., Wembley	£5,125 0 0
B. J. Jones & Co. (Kent), Ltd., Hayes	3,043 15 3
J. A. Dumayne & Co., Ltd.	2,960 0 0
Snow Bros., Ltd.	2,939 19 9
‡Greenaway & Son, 265a, Lordship-lane, S.E.22	2,515 0 0

Demolition of 2 to 16, Cobourg-road—

C. Fowler	**220 0 0**
Goret & Co., Ltd., Wemling	166 0 0
Circle Transport Contractors Supply Co.	163 0 0
E. White	120 0 0
A. Penfold	110 0 0
Stonebridge Demolition Co.	106 0 0
Wackett Bros., Ltd.	96 0 0
Road Foundation Co., Ltd.	86 0 0
A. H. & J. H. Biswell	75 0 0
Walter Hobbs & Co.	170 0 0
W. J. Way & Co.	60 0 0
T. H. Isard & Co.	48 0 0
W. A. Hollingsworth	47 10 0
H. M. Sinden	42 10 0
H. G. Squirrell	100 0 0
‡Exeter Bros., "Maison Nous," Old Downs-road, Fawkham, Kent	40 0 0

(Remainder of London.)

London.—Repairs and redecorations at Brockley Library, for the Lewisham B.C.:—

A. T. Peyton	£231 0
W. A. King & Sons (Brixton), Ltd.	229 0
R. A. Blake & Son	184 10
Why & Clayton	155 10
Walker Clinging & Co.	149 0
H. Piper & Son	125 0
*Andrew Black & Son	111 12

Luton.—Houses, for the R.D.C. Mr. H. Pickering, surveyor, 73, West-parade, Dunstable:—
8 houses and 2 bungalows at Hockliffe—
*Gardener Development Co., Ltd., Lancot Hill, Dunstable £3,134
4 houses and 2 bungalows at Studham—
*Gardener Development Co., Ltd., Lancot Hill, Dunstable 1,890

Lymm.—Alterations and additions at the grammar school, providing for assembly hall, laboratory, art room, design room and workshop, existing assembly hall to be converted into dining hall, for the Cheshire C.C. Mr. F. Anstead Browne, F.R.I.B.A., County Architect, The Castle, Chester:—
*E. E. Coleman, Ltd., Sale, Cheshire.
(Estimated cost £8,000.)

Marple.—40 houses and 24 bungalows on Peace Farm estate, for the U.D.C. Mr. D. J. Diver, surveyor:—
†Harris Bros., Ripley £20,400

Middlesbrough.—Conversion of old isolation hospital into hospital for mentally defectives, for the T.C. Mr. C. Gorman, Borough Engineer:—
*J. McCreton, Ltd., West-terrace, North Ormesby, Middlesbrough ... £9,224

Milnrow.—44 houses on the Holt estate, for the U.D.C. Mr. A. Travis, architect, Newmarket-chambers, Yorkshire-street, Rochdale:—
Contractors—*T. Wilkinson & Son (Rochdale), Ltd.
Brickwork—*R. & T. Howarth, Ltd.
Plumbing—*H. Tattersall, Ltd.
Plastering—*F. Ross, Ltd.
Painting—*A. & J. W. Lord.
Electricians—*Rochdale Electric Co., Ltd.
(All of Rochdale.)

Monaghan.—Clinic at Ballybay, for the Board of Health:—
*P. McGeough £2,753

Motherwell.—402 houses on the Golf Course site, for the T.C. Mr. Victor Wilson, B.Sc., architect, Merry-street:—
Excavation, brick and mason—
*W. Chambers & Son, Ltd., Motherwell £78,977
Plaster, lathing and cement—
*McCartney & Reid, Wishaw 9,880
Slater work, roughcasting, etc.—
*J. & J. Thomson, Motherwell 16,179
Plumber work and sanitary engineering, etc.—
*R. W. Muir, Motherwell 17,133
Iron railings, gates and allied works—
*R. Marchbank & Sons, Larkhall 4,241
Joinery, carpentry and ironmongery—
*W. Chalmers & Sons, Ltd., Flemington 43,996
Painter—
*J. Kemp & Son, Motherwell 4,043
Electrical fittings and installation—
*J. Shaw & Son, Uddingston 4,051

Mullingar.—62 houses, for the T.C.:—
*Ennis Bros. £19,119

Naas.—62 houses on the De Burgh site, for the U.D.C.:—

Henly & Co.	£18,772
O'Reilly & Sons	18,094
Hoey & Sons	17,856
O'Sullivan Bros.	17,826
*E. S. Sargent, Trim	17,239

Newcastle-upon-Tyne.—104 flats on the Bedford-street site, City-road, for the T.C. City Architect, 18, Cloth Market:—

James R. Rutherford & Sons, Ltd.	£73,600 0 0
Alex. Anderson (Contractors), Ltd.	72,995 10 4
Wm. D. Allison, Whitburn	72,808 0 0
Stanley Miller, Ltd.	60,545 0 0
A. & J. W. Potts	69,103 0 0
Kirk & Dickinson	62,737 0 0
John Jackson & Sons	60,767 0 0
*Henry Kelly (Contractor), Ltd.	59,810 14 9

(All of Newcastle.)

Normanton.—Additions to administrative block at the Ackton Hospital, near Pontefract, for Normanton and District Joint Isolation Hospital Committee. Messrs. R. A. Rasdale & Sons, architects, County-chambers, Castleford:—
*W. Sawyer & Sons, Pontefract.

North Tipperary.—Improvements at Roscrea Technical School, for the Vocational E.C.:—
*T. Maher, Roscrea £459

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Northallerton.—New Court House, for the North Riding C.C. Mr. J. R. White, F.R.I.B.A., County Architect:—
*G. W. Lamenby & Co., Ltd., Ferry Hill.
(Estimated cost £21,000.)

Omagh.—Annexe to Fever Hospital, for the Board of Guardians:—
*Samuel Orr, Londonderry £2,680

Ormskirk.—Exterior painting at Edge Hill training college, for the Lancashire E.C.:—
*McGregor & Son, Wigan £296 10

Oxford.—New garage at Botley-wharf, for the City Council:—

J. Hansard	£7,073 0 0
Collett & Rogers	7,058 5 2
Building & Public Works Construction Co., Ltd.	6,997 0 0
C. H. Gibson & Sons	6,978 0 0
Walker & Baker	6,950 0 0
Hinkins & Frewin	6,621 0 0
C. & F. Bryen	6,405 4 1
Kingerlee & Sons	6,397 0 0
Benfield & Loxley	6,378 0 0
*S. Hutchins & Sons, Ltd.	6,369 0 0

Penrith.—Premises in Middlegate, for Messrs. Montague Burton, Ltd., Hudson-road Woollen Mills, Leeds, 9. Mr. N. Martin, L.R.I.B.A., architect, Hudson-road Woollen Mills, Leeds, 9:—
*W. & A. Forsdike, Ltd., Sheffield.

Ramsbottom.—Extensions to Aitken Memorial and Jubilee Cottage Hospital, for the Board of Management. Messrs. Bradshaw Gass & Hope, F.F.R.I.B.A., architects, 19, Silverwell-street, Bolton:—
Contractors—*R. J. Tyson.
Excavating—*Wm. Politt & Co.
Concretor—*J. Dickinson & Co. (Bolton), Ltd.
Stonemason—*Jackson's Stone Quarries.
Plumber and glazier—*Slater & Russell, Ltd.
Slaters—*J. Hodson, Ltd.
Plastering and painting — *A. Hogg, Ltd., Manchester.
Brickwork—*S. Talbot & Sons.
Steelwork—*T. Walmsley & Sons.
(Remainder of Bolton.)

Rawtenstall.—40 two-bedroom and 12 three-bedroom houses at Hall Carr No. 2 estate, for the T.C. Mr. J. Johnson, Borough Surveyor:—
‡H. Tricketi & Son, Ltd., Rawtenstall £20,209

Rotherham.—Works for the T.C.:—
Workshops at the transport depot—
*Works Department £16,000
Supply and fixing rail fencing for enclosure of new gasholders site—
*Bayliss, Jones & Bayliss, Ltd., Wolverhampton.
Installation of electricity at Oakwood Hall Sanatorium extensions—
*Electricity Department, Rotherham Corporation.

Rothesay.—Pavilion, for the T.C. Messrs. J. & J. A. Carrick, architects, Wellington House, Ayr:—

Demolition and site clearance— *Marshall & Co. (Builders), Ltd., Hamilton-road, Cambuslang...	£415 12 0
Reinforced concrete work— *Marshall & Co. (Builders), Ltd., Hamilton-road, Cambuslang ...	9,498 2 2
Excavator, concrete, mason, brick, etc., works— *Marshall & Co. (Builders), Ltd., Hamilton-road, Cambuslang ...	16,793 11 7
Metal windows— *Henry Hope & Sons, Ltd., Smethwick	1,297 2 1
Glazier work— *A. S. Wright & Co., Ltd., Glasgow	412 7 8
Plumber and gasfitter— *Wm. Hendry & Sons, Glasgow ...	1,432 9 1
Plaster, tile, terrazzo, also external plaster work— *Donald Livingstone & Son, Glasgow	1,938 5 8
Heating installation— *Donald Smith & Co., Glasgow...	1,407 1 2
Joiner, and ironmonger works— *Duncan M. Jenkins, Rothesay...	4,077 12 7

Ryton.—92 houses at Crawcrook and 44 at Greenside, for the U.D.C. Messrs. Newcombe & Newcombe, architects, Eldon-square, Newcastle:—
*R. Carse & Son, Oldgate, Morpeth ... £36,718

Scalby.—Offices, for the U.D.C. Mr. T. E. Dearmer, engineer and surveyor, North-street:—

Excavator, bricklayer, mason, joiner— *E. G. H. Sharman, Scarborough	£1,618 10 0
Plumber— *J. R. Sleigholme & Son, Scarborough	153 13 0
Electrician— *E. S. Raney, Scarborough	79 10 0
Ironfounder— *Hy. Pickup, Scarborough	68 4 5
Slater— *Pickles Bros., Leeds	106 7 6
Painter— *T. M. Allanson, Scarborough	149 18 0
Heating engineer— *Hy. Pickup, Scarborough	154 7 6

Selby.—Extensions at the girls' high school, for the Governors and the West Riding E.C. Mr. H. Wormald, architect, County Hall, Wakefield:—
*Wm. Birch & Sons, Ltd.

Sheffield.—Motor garage and petrol-filling station in Penistone-road, for Mr. A. Kitson, motor engineer, Shed 41, Woodseats Aerodrome. Mr. H. C. Husband, architect, 18, Ringinglow-road:—
*Henry Boot & Sons, Ltd., Sheffield.

Sheffield.—28 bungalows in Rivelin Valley-road, Malin Bridge. Messrs. Holmes, Son & Archer, architects, Parade-chambers, East Parade:—
*M. Bonner, Sheffield, 11.

Sherborne.—Eight houses, also construction of road surface water drains, and water main, at South-avenue housing scheme, for the U.D.C. Mr. C. E. Bean, architect and surveyor:—
*E. G. Wilkins, Marnhull.

Shrewsbury.—Fire station at Cross Hill, for the T.C.:—
Builders—
*William Higley, Pontesbury £6,970 16 8
Steelwork—
*Horsehay Co., Ltd., Wellington 797 17 6

South Cambridgeshire.—Four houses in Sawston, for the R.D.C. Mr. T. Stone, architect, County Hall, Hobson-street, Cambridge:—
*James Brignell & Sons, St. Andrew's-road, Cambridge £1,272

South Tipperary.—Six cottages in Tipperary, for the Board of Health:—
*John O'Connell, Thurles £1,499

Southampton.—Works, for the C.B.:—
Bassett-green junior school, erection of new buildings—
Jenkins & Sons, Ltd. £30,296 0
A. G. Saunders, Ltd. 29,704 14
A. Morris, London 28,906 9
The Building & Public Works Construction Co., Ltd., Swindon ... 27,948 0
*Crosby & Co., Ltd., Farnham 27,897 0
(Borough Engineer's estimate: £27,775.)
Erection of semi-permanent school, Chestnut-road, Shirley Warren—
Brignell & Gauntlett £3,863 7
Crosby & Co., Ltd., Farnham 3,669 0
*J. J. Udall's Building Co., Ltd. ... 3,388 0
(Borough Engineer's estimate: £3,500.)
Additions to cottage at Remand Home—
Brignell & Gauntlett £602 8
J. J. Udall's Building Co., Ltd. ... 598 0
Wheeler & Hann 549 9
*O. F. Roberts 473 10
(Borough Engineer's estimate: £460.)

Stamford.—Assembly hall, classrooms, domestic science department, cloakrooms, etc., to High School for Girls, St. Martins, for the Board of Governors:—
*T. Roper & Sons, Ltd., Sheffield £18,099

Tiverton.—Conveniences at Higher Mill-lane, Cullompton, for the R.D.C. Mr. A. J. Dennis, sanitary surveyor, 25, St. Peter-street:—
W. H. Mitchell, Cullompton £640 0 0
*H. Howe, Kentisbeare 579 13 6

Walthamstow.—Works, for the T.C.:—
Heating installation in Samuel-road infants' school—
*F. Davies £601
Electricity sub-station at the new town hall site—
*Barvis Partners, Ltd. £2,985 18 6

Walton.—Electricity sub-station in Churchfield-road, for the U.D.C.:—
*A. S. Ashcroft, Ltd. £417

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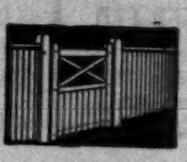

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